

SUBPART D
CATEGORICAL EXCLUSION (CX) DETERMINATION RFO/CX16-93

Proposed Action: Site Characterization Activities at OUs 8, 10 and 13

Location: Rocky Flats Plant, Golden, CO

Proposed by: U.S. Department of Energy, Rocky Flats Office

Description of the Proposed Action:

Site characterization work under provisions of the Comprehensive Environmental Response, Compensation and Liability Act and the Resource Conservation and Recovery Act are planned to take place at the Department of Energy's Rocky Flats Plant (RFP) for Operable Units (OUs) 8, 10 and 13 in two stages. This work would begin in the spring of 1993 and continue at each of these OUs for several years.

OU 8

OU 8, the 700 Area, consists of 24 individual hazardous substance sites (IHSSs) and is shown in Figure 1. All the IHSSs are located within the Protected Area of RFP except part of IHSS 172 which includes lands both in the Protected Area and in the Security Controlled Area.

Stage One site characterization at OU 8 would consist of a review of plant plans and site inspections to determine the presence or absence of drains around the perimeter of foundation footings of some buildings, a review of previous studies to identify those sections of the Plant's sanitary sewer system where leakage into or out of pipes may have occurred, taking of water and sediment samples from within the storm drain and/or sanitary sewer systems to assist in locating contaminant sources, and photographic inspections of certain sewer pipes.

Stage Two would consist of field sampling and screening activities including:

- 101 radiological surveys using a high-purity Germanium (HPGe) detector at larger sites or a sodium iodide scintillation detector (NaI probe) at smaller sites to detect gamma-emitting radionuclides. The HPGe detector is mounted on either a tripod or a vehicle and placed a set distance above the ground to measure gamma rays which originate from surface media as the detector is moved across a site. In paved areas, holes 4 to 8 inches in diameter may be cut in the pavement to allow the instrument to take measurements. The NaI probe is a hand held instrument that takes readings as it is carried across a site.
- 36 vertical soil profiles. Vertical soil profile samples would be taken at depths of 0 to 2 inches, 2 to 4 inches and 4 to 6 inches using a hand-held instrument.
- 122 surficial soil samples. Samples would be taken on a grid layout with hand-held instruments. In paved areas, soil samples could include samples of the pavement or a small hole may be cut in the pavement, the underlying base material removed, and the soil sample taken from the native soil. Surficial soil samples would generally be taken from the top 2 inches of native soil.

- 91 soil gas samples. Soil gas samples would be collected using a vehicle with a hydraulic rig to drive the collecting probe five feet into the ground. Probes are typically about one-inch in diameter. Where the collection point has a paved surface, a small hole would be cut through the pavement. Where vehicle access is not possible, collection probes would be driven by hand. Soil gas surveys would be conducted on a grid system, often 20- and 40-foot triangular grids, depending on the IHSS.
- Tank and pipeline inspections. Activities would include inspection of above-ground piping or other ancillary structures, pressure testing and residue sampling of tanks, drain systems and pipelines.
- Runoff water and sediment sampling at storm sewer outfalls, under-drain trunk lines, above confluence points between two open drainageways and within open drainageways. Individual water and sediment sample sizes would be on the order of a few pints or pounds of medium.

OU 10

OU 10, Other Outside Closures, consists of 15 IHSSs that are distributed throughout the developed area of the Plant and adjacent areas of the Buffer Zone. Locations of the 15 IHSSs comprising OU 10 are shown in Figure 11. Some of the areas to be investigated are under pavement. The activities listed below would be undertaken in the same manner as described for OU 8. Locations of the Stage One and Two work are shown in Figures 12 through 32, and it would include:

- 169 radiological surveys.
- 542 soil gas surveys.
- 21 vertical soil profiles.
- 184 Surficial soil samples
- inspection of both above-ground and underground tanks and associated valves, fittings and pipelines. This activity would require excavation to reach some of the sites to be inspected. Depth of the excavations would be determined by the depth of the tanks and pipes.
- 3 samples of tank residues by removing small amounts of any liquids in the tanks.

The types and locations of Stage Two work at OU 10 would be determined by the results of Stage One. Soil borings would be made within the IHSSs at sites identified as contaminated by Stage One soil gas surveys as well as at sites identified by stained soil or stressed vegetation. Soil borings would be obtained using standard rotary drill rigs and are expected to be confined to the vadose (unsaturated) zone. Finally, Stage Two would include the taking of approximately 10 small pavement samples at each IHSS that has been paved.

OU 13

OU 13, the 100 Area, is located in the western half of the developed area of RFP southeast of

Building 371 as shown in Figure 33. All the 15 IHSSs in OU 13 except the northeast corner of IHSS 117.1 and a portion of IHSS 197 are located outside the Protected Area but in the developed area of the Plant. Stage One and Two characterization activities in OU 13 would be carried out in the same manner as described for OUs 8 and 10. The locations of these activities are shown for each IHSS in figures 35 through 44 and would include:

- visual inspections of the ground surface to identify areas for further investigation
- 666 surface radiological surveys.
- 589 soil gas surveys.
- 4 soil borings.
- 54 surficial soil sampling.
- 30 vertical soil profile sampling.
- 20 groundwater well and piezometer samples from existing wells.

Areas identified in Stage One as being of particular interest or requiring fuller delineation would be further investigated in Stage Two. Stage Two site characterization activities would consist of drilling a minimum of two or three boreholes within each IHSS where contamination was found in Stage One. For those IHSSs where no contamination was detected during Stage One, one borehole would be drilled to confirm the absence of contamination at the point most likely to have been contaminated based on the history of the site. For IHSSs where contamination is detected during Stage One, boreholes would be drilled at the location of the highest level of contamination detected by the surface radiological survey and by the soil gas survey within the IHSS.

All Stage Two boreholes would be drilled 6 feet into weathered bedrock so the total depth of a given well would depend on the depth to bedrock. If the weathered bedrock in any borehole is sandstone, the boreholes would be drilled through the sandstone at least 6 feet into the next bedrock horizon. Surface scrapes would be taken at the location of each borehole prior to drilling. At locations where the drill site is paved, soil samples would be taken from approximately 4-inches below any fill material under the pavement. Soil/geologic and water samples may be taken at any boreholes. All boreholes except those identified for completion as monitoring wells would be plugged and abandoned after sampling. Locations of some boreholes may be adjusted slightly in the field to avoid underground or above-ground obstacles.

None of the characterization activities would take place within a floodplain, wetland or other environmentally sensitive area. Cost of site characterization activities at OUs 8, 10 and 13 is estimated to exceed \$20 million.

Categorical Exclusions to be applied:

B3.1 Site characterization and environmental monitoring, including siting, construction, operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities

include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, and radar), geochemical, and engineering surveys and mapping, including the establishment of survey marks; (b) Installation and operation of field instruments, such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools; (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants; (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities, including assessment of potential wind energy resources; (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

DOE NEPA REGULATIONS SUBPART D
CATEGORICAL EXCLUSION DETERMINATION - RFO/CX16-93
Site Characterization Activities at OUs 8, 10 and 13

I have determined that the proposed action meets the requirements for a categorical exclusion as defined in the Subpart D of 10 CFR 1021. Therefore, I approve the categorical exclusion of the proposed action from further NEPA review and documentation.

Date: 5/10/93

Signature: Alvin H. Pauole
Title: Acting Manager, Rocky Flats Office

Project Sponsor:

Date: 4/29/93

Signature: Richard J. Schassburger
Title: Acting Director, Environmental Restoration Division

I have reviewed this determination and find that a categorical exclusion is the appropriate level of NEPA documentation.

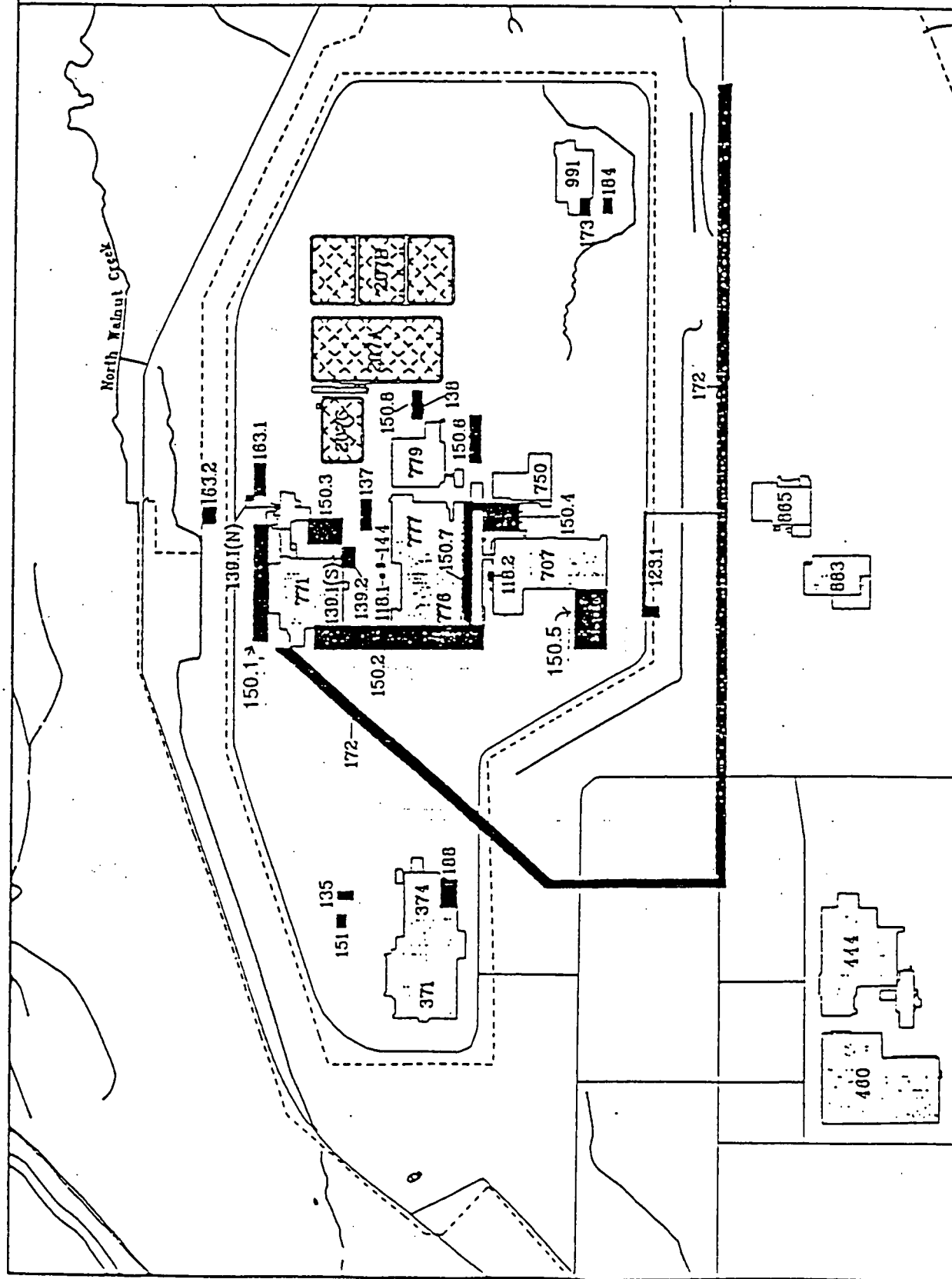
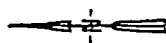
Date: April 27, 1993

Signature: Patricia M. Powell
Title: NEPA Compliance Officer

ADS number: 1006A, 1008A, 1231 (EM)
EC 93-012

U.S. Department of Energy
Rocky Flats Plant

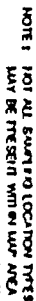
- Perimeter roads
- Stream, ditch, and other drainage features
- Security fence
- Individual hazardous substance other (HSS)
- Ponds/lakes
- Buildings or structures



Environmental Restoration
Technical Support Document

Operable Unit 8
700 Area

Figure 1 Date: 4-28-92



File Name: JUB6-5.DWG

MAP LEGEND

ROADWAYS

SURFACE WATER RUNOFF

BUILDERS AND PLANNERS

SUBSTITUTE BILLS AND AMENDMENTS

EXISTING SURVEY LOCATION

SW210 SURFACE WATER SWATH

SED0210 RAYAGE WATTS BT004111

207589 • **NEUROINFL**

219589 O ALUMINUM

33-870 DOMINIC

THE LONDON WTL

PROPOSED STAGE 2 SAWTLE LOCALITY

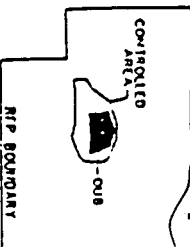
+ boros

0 SURVIVAL 90%

• 123

THE UNIVERSITY OF CHICAGO

Scale 1000



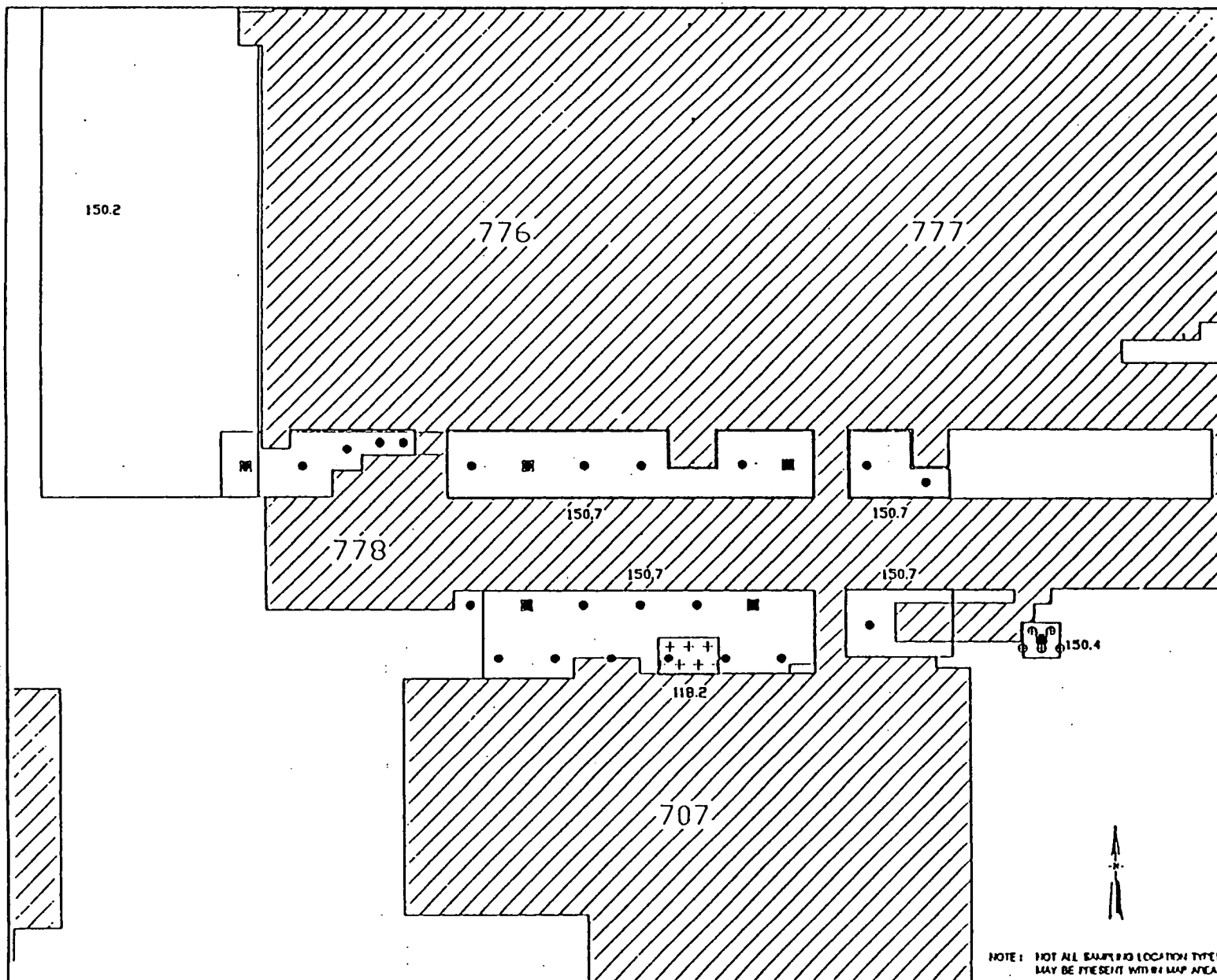
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant
Golden, Colorado

ORDERED ON 11/11/01
PHASE I RFI/RFI WORK PLAN

Figure 2

PROPOSED SAMPLING LOCATION
MISS NO.: 118.1, 137, 139.1
139.2, 144(N), & 150.3

Approved By PJS Date 11/21/92



MAP LEGEND

ROADWAYS

SURFACE WATER FEATURES

BUILDINGS AND MAINTENANCE

137 HAZARDOUS SUBSTANCE SITES AND MAINTENANCE

EXISTING SAMPLING LOCATION

SW121 ○ SURFACE WATER SAMPLING

SED124 ○ SURFACE WATER SEDIMENT

P207589 ● BEDROCK WELL

P219589 ○ ALLUVAL WELL

BI133-87 ○ BOREHOLE

348 △ PRE-1984 MONITOR WELL

PROPOSED STAGE 2 SAMPLE LOCATIONS

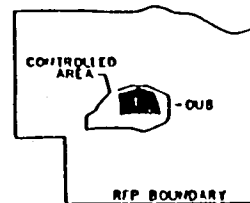
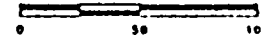
+ SOIL GAS

○ SURFICIAL SOIL

● 150m

□ VERTICAL SOIL PROFILE (AERIAL LOCATION WILL BE INDICATED IN THE FIELD)

SCALE IN FEET



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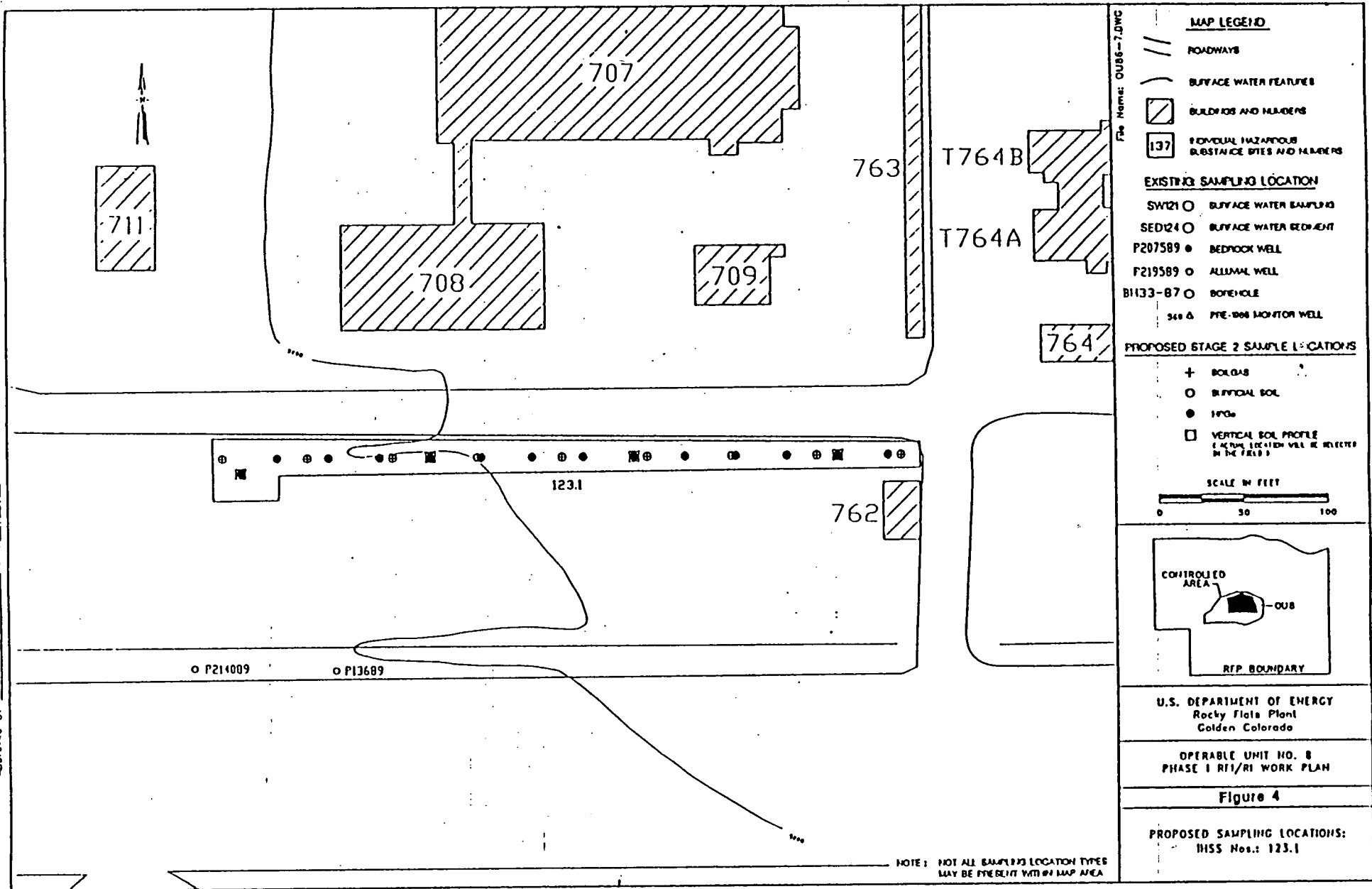
OPERABLE UNIT NO. 8
PHASE 1 RFI/RI WORK PLAN

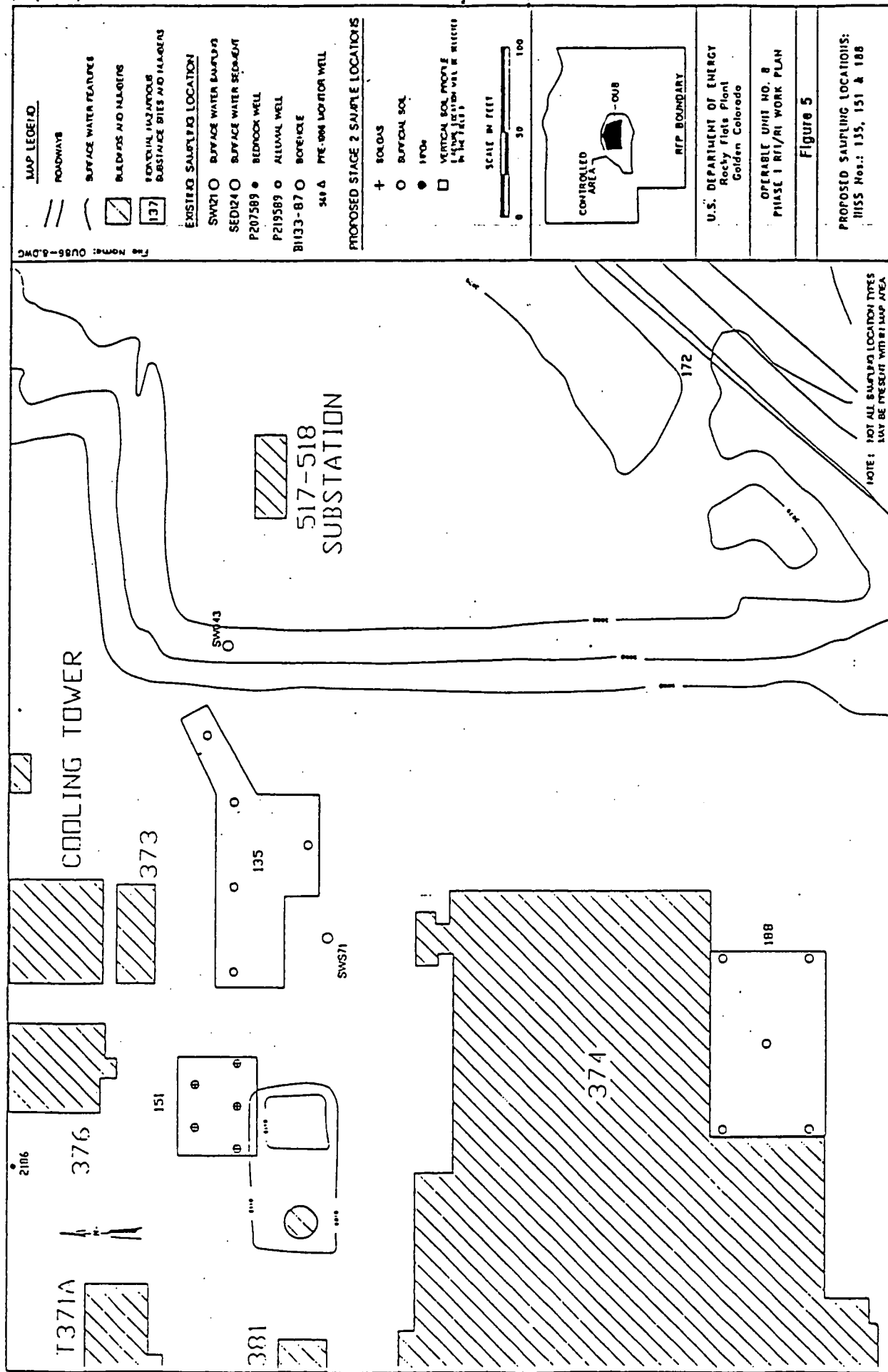
Figure 3

PROPOSED SAMPLING LOCATIONS:
MISS Nos.: 118.2, 150.4 & 150.7

NOTE: NOT ALL SAMPLING LOCATION TYPES
MAY BE PRESENT WITHIN MAP AREA

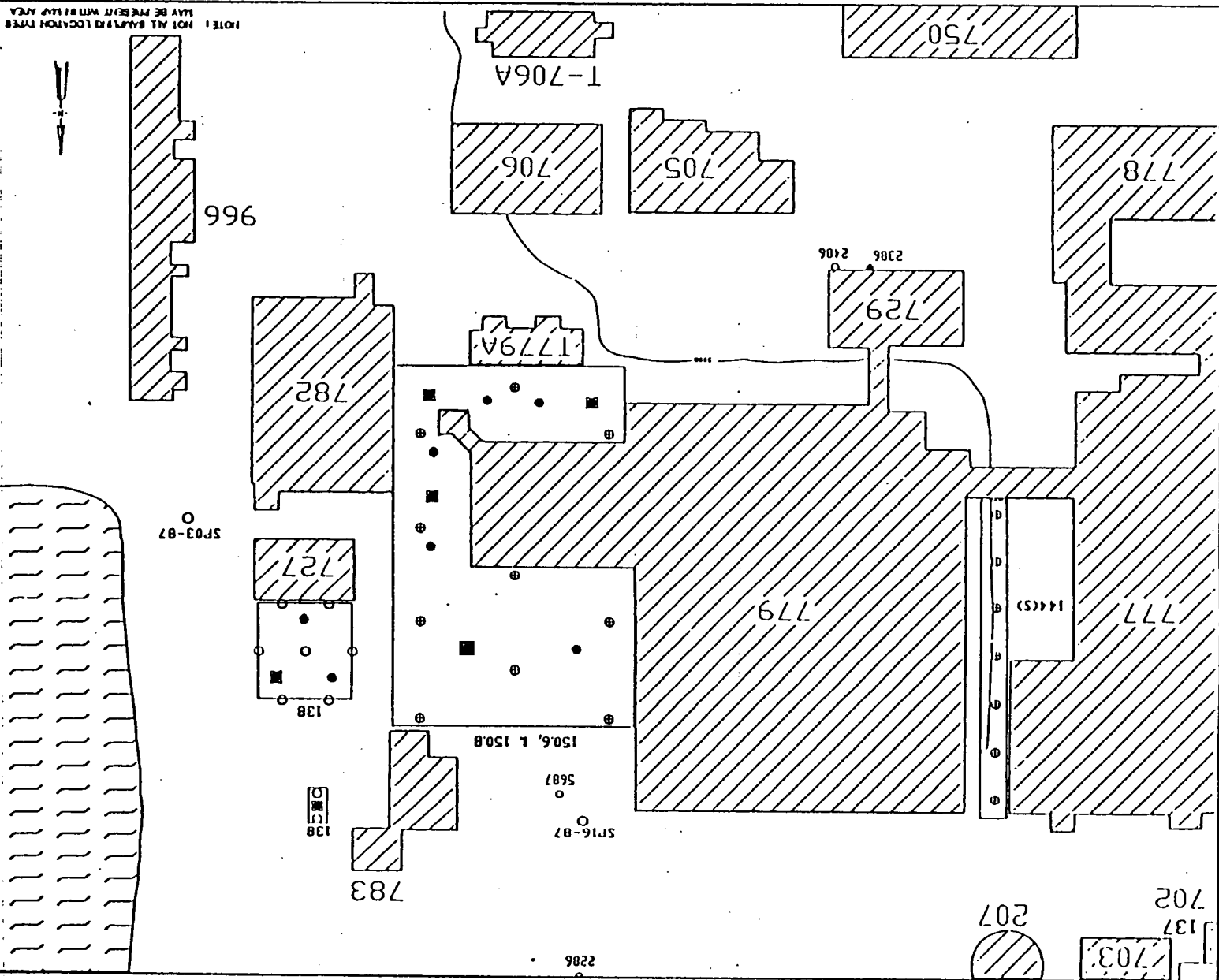
Approved By P55 Date 11.21.02

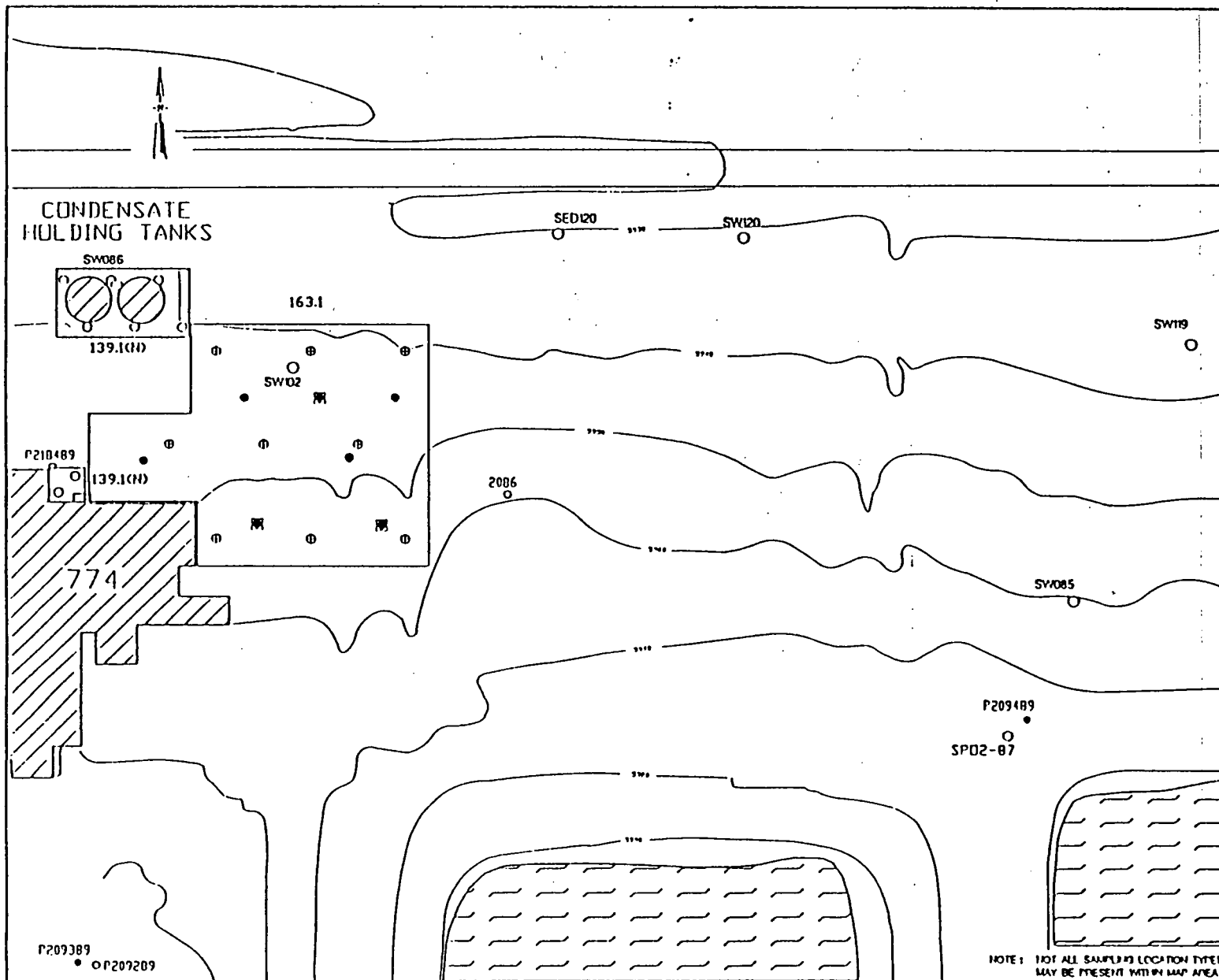




Approved By: PJ Date: 11/29/92

Approved by *PJS* Date *11/21/02*





File Name: 0056-10.DWG

MAP LEGEND

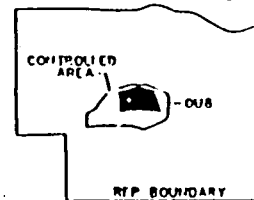
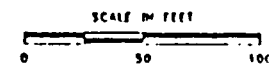
- ROADWAYS
- SURFACE WATER FEATURES
- BUILDINGS AND MARKERS
- 137 REMEDIAL INVESTIGATION DISTANCE BITES AND MARKERS

EXISTING SAMPLE LOCATION

- SW121 ○ SURFACE WATER SAMPLE
- SED124 ○ SURFACE WATER BENTHIC
- P207589 • NETWORK WELL
- P219589 ○ ALLUVAL WELL
- BH133-87 ○ BOREHOLE
- 348 Δ PRE-1986 MONITOR WELL

PROPOSED STAGE 2 SAMPLE LOCATION

- + BODILY
- SURFICIAL SOIL
- 10%_W
- VERTICAL SOIL PROFILE (LITHOLOG LITHOLOGY NOT IN THE FIELD)



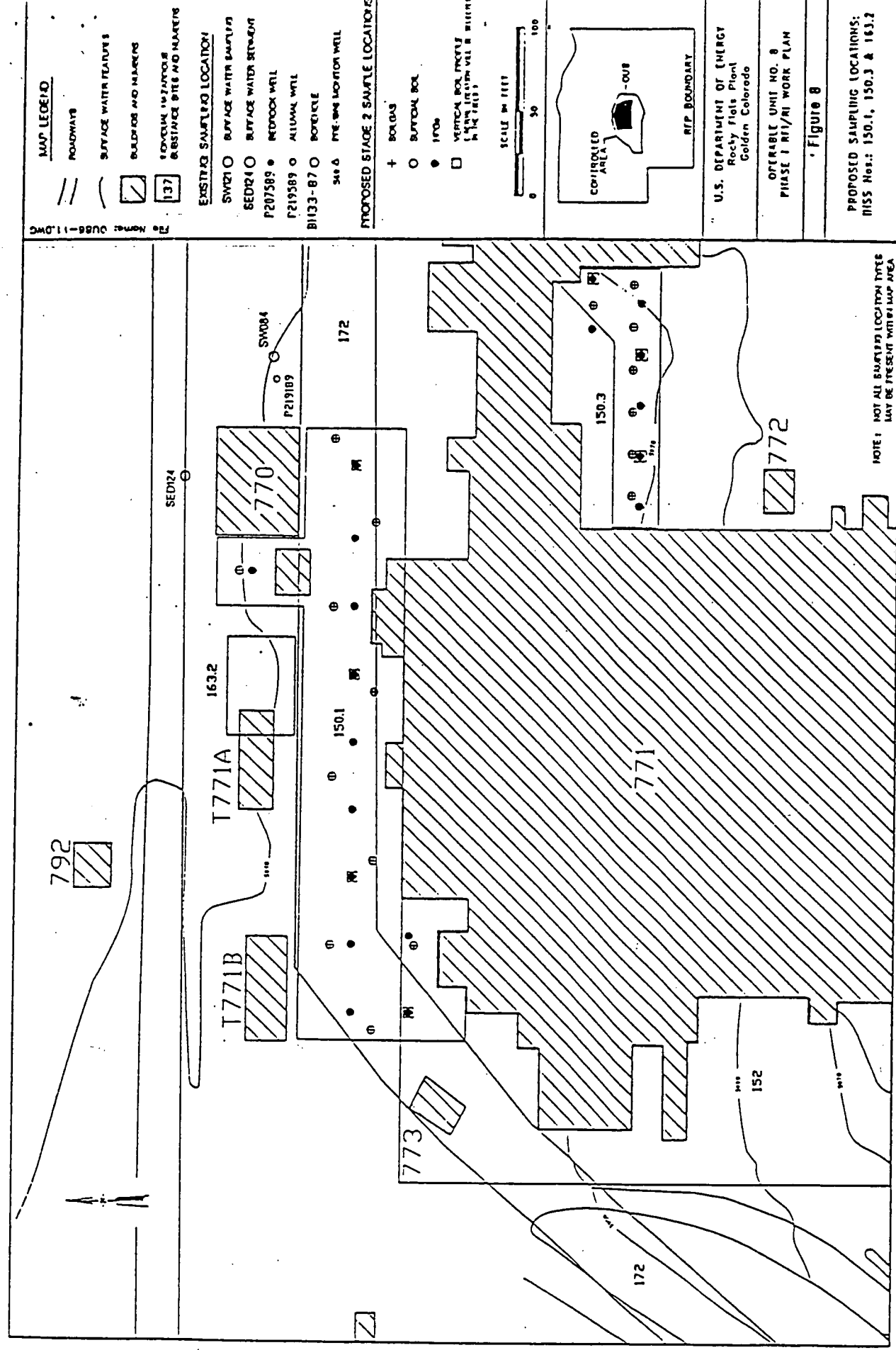
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Golden Colorado

OPERABLE UNIT NO. 8
PHASE I RI/RI WORK PLAN

Figure 7

PROPOSED SAMPLING LOCATIONS
MISS Nos.: 139.1(N) & 163.1

NOTE: NOT ALL SAMPLING LOCATION TYPES MAY BE PRESENT WITHIN MAP AREA



Approved by P.55 Date 11/23/72

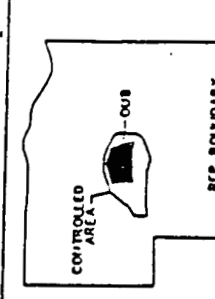
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File Name: OUB6-12.DWG

- MAP LEGEND**
- ROADWAYS
 - SURFACE WATER FEATURES
 - BOUNDARIES AND MARKERS
 - POTENTIAL HAZARDOUS SUBSTANCE BITE AND MARKERS
 - EXISTING SAMPLING LOCATION
 - SW121 O SURFACE WATER BOUNDARY
 - SED124 O SURFACE WATER BOUNDARY
 - P21589 O BEDROCK WELL
 - P21589 O ALLIUM WELL
 - BH33-87 O BOREHOLE
 - 341 A PRE-900 LOCATION WELL

- PROPOSED STAGE 2 SAMPLE LOCATIONS**
- + SOLID
 - O BUFFERED SOL
 - 1000
 - VERTICAL BTL PROFILE (1000 LBS. LBS. IN 1000)

SCALE IN FEET
0 50 100

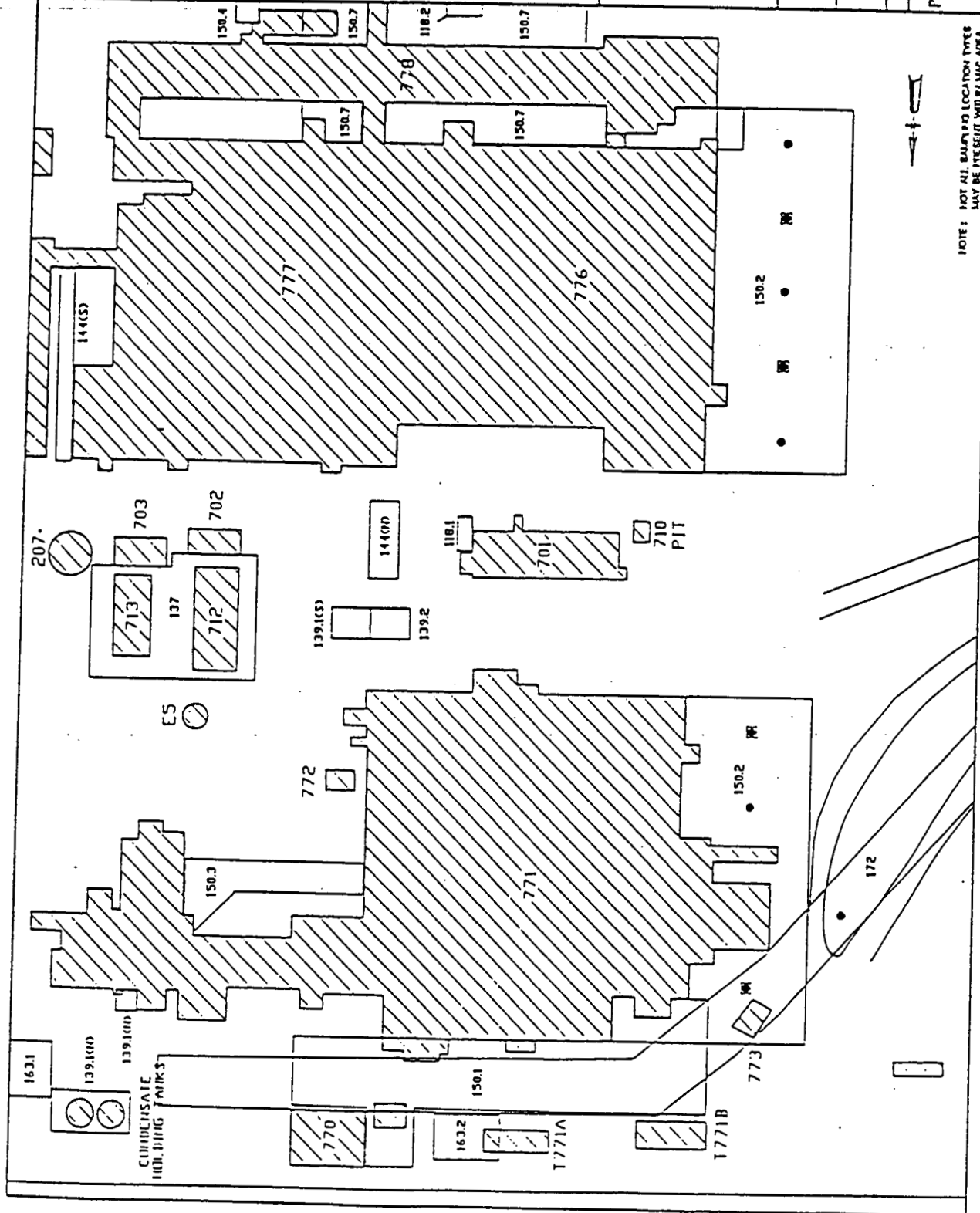


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OPERABLE UNIT NO. 8
PHASE 1 RFP/RI WORK PLAN

Figure 9

PROPOSED SAMPLING LOCATIONS:
HISS Nos.: 150.2



NOTE: NOT ALL SAMPLING LOCATION TYPES MAY BE IDENTIFIED WITH MAP AREA

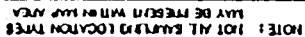


Figure 10

OPERABLE UNIT NO. 8
PHASE 1 RFI/RI WORK PLAN

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Golden Colorado



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□ ● ○ +

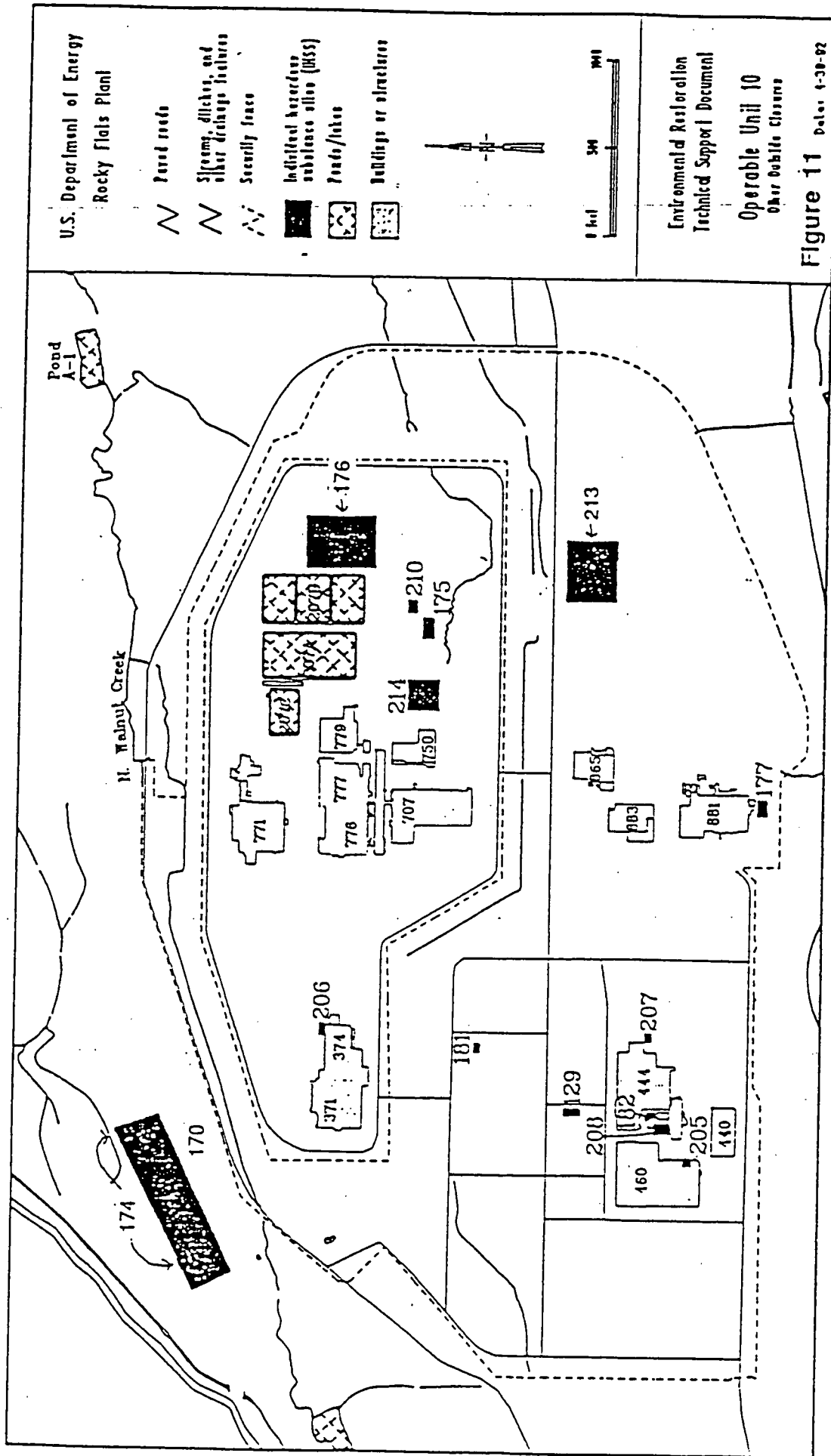
PROPOSED STAGE 2 SAMPLE LOCATION

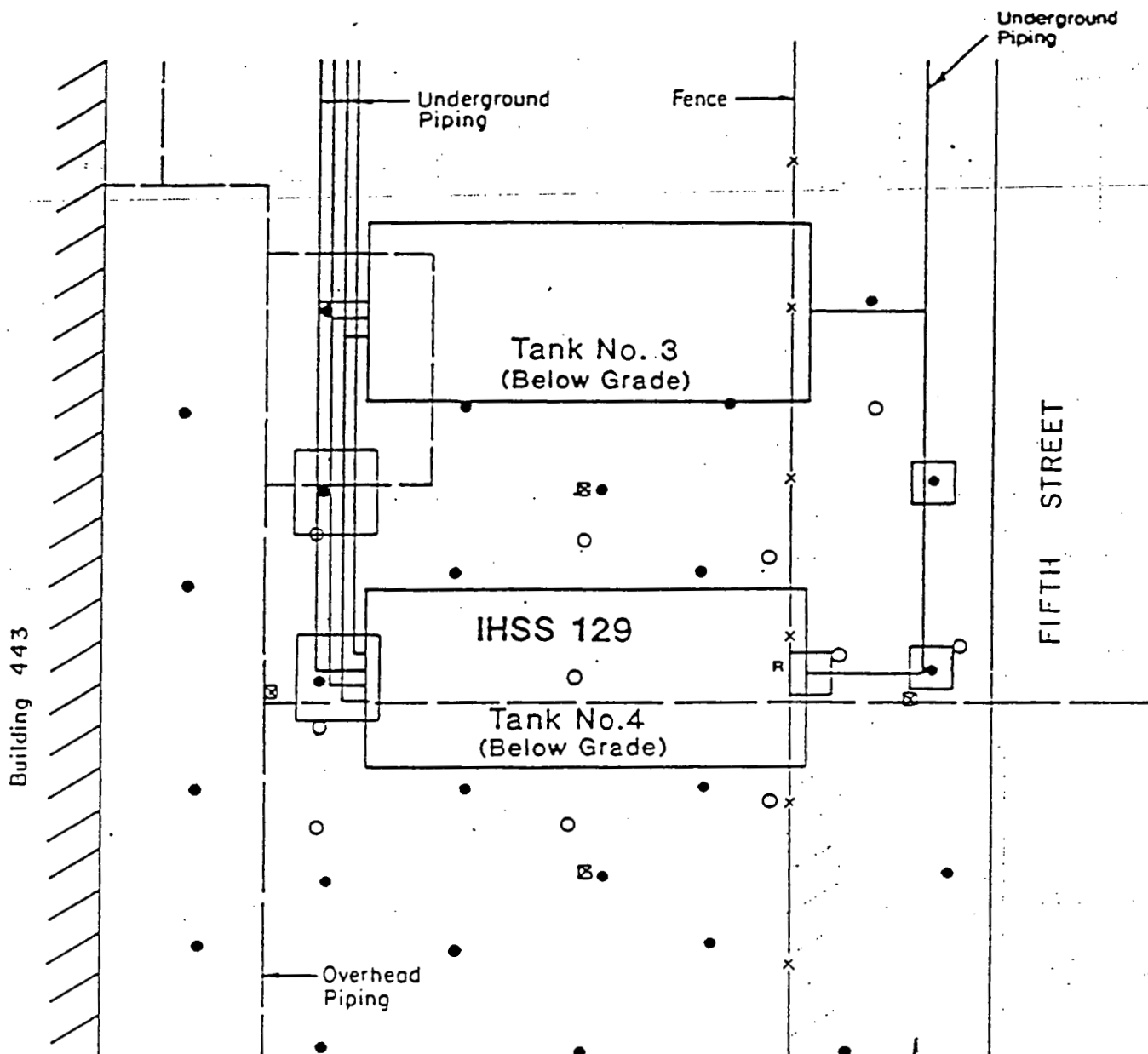
SW210 SURFACE WATER SAMPLED
SED240 SURFACE WATER SEDIMENT
P207589 • BEDROCK WALL
P219589 • ALUMINUM WALL
BH33-87 O BORON
595 A TUM WOLFFEN BUTTE

137

File Name: 0086-13.DWG

013931 AM





Legend

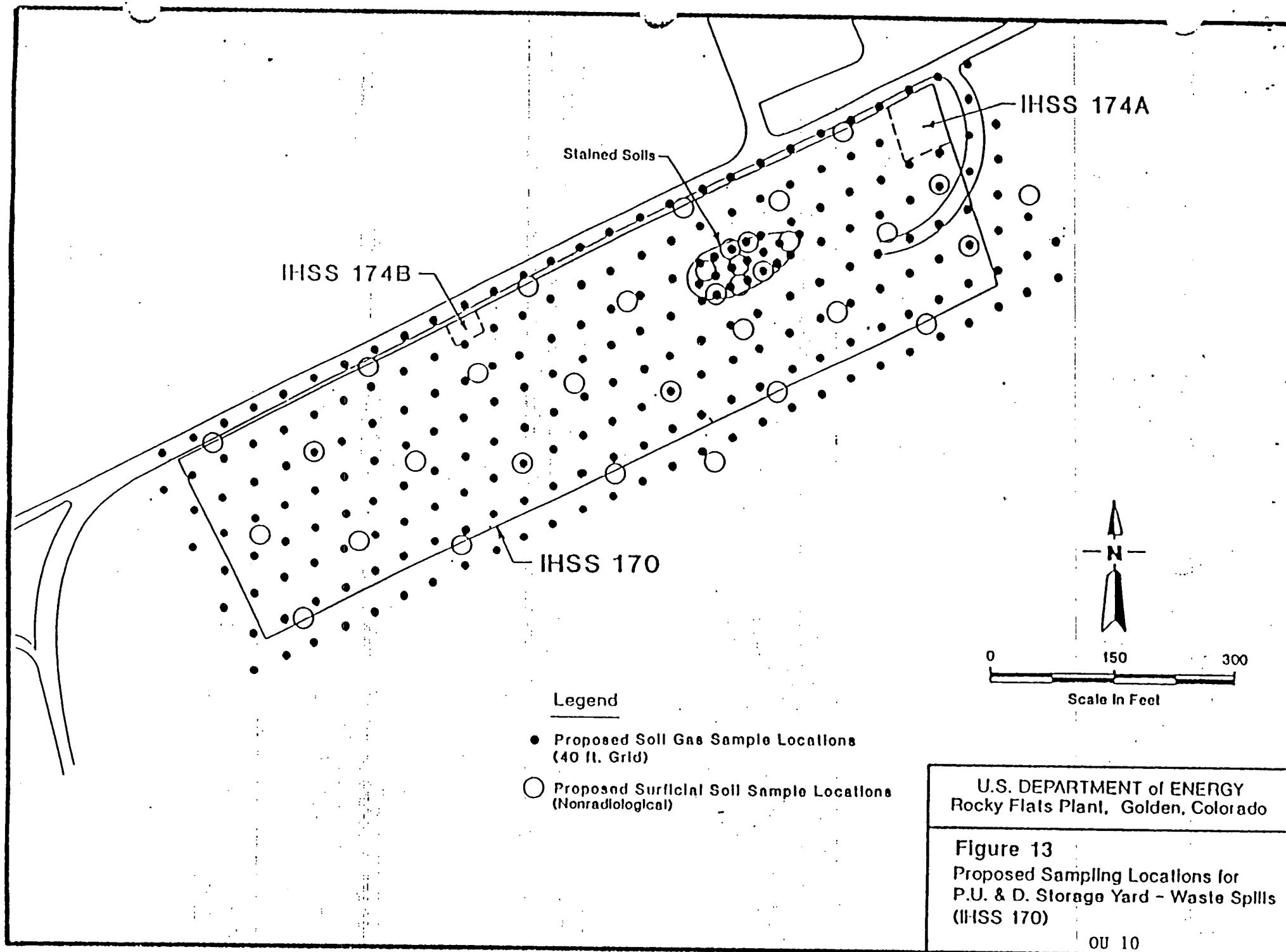
- ⊠ Previous Soil Sample Location
- Proposed Soil Gas Sample Locations (10 ft. Grid)
- R Tank Residue Sample
- Inspection Pit Location
- Proposed Surficial Soil Sample Location (Nonradiological)

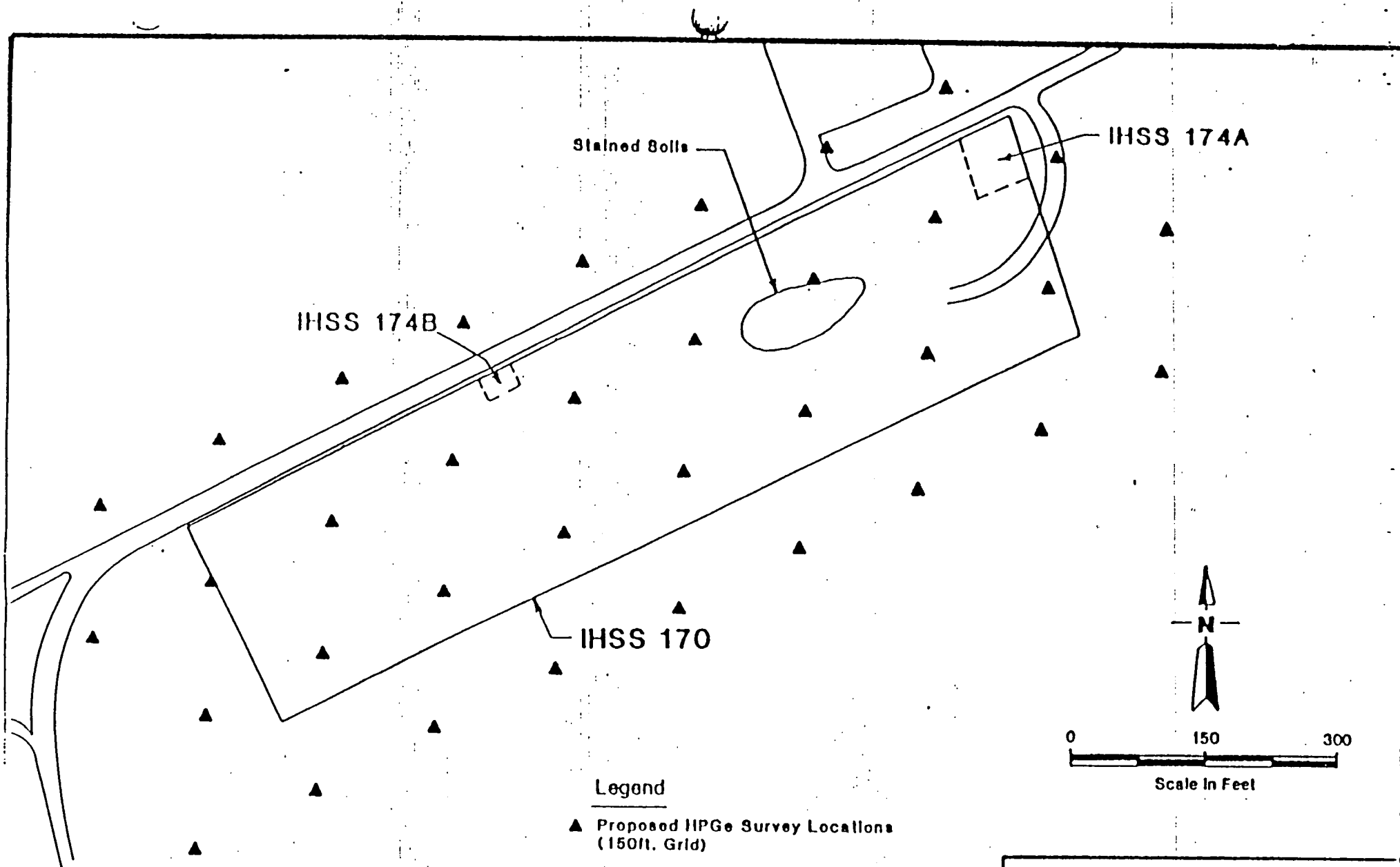
Note: Tank locations are from the closure report, and have not been verified by facility drawings.

Excavations for inspection will occur at pipe elbows, fittings and valves.

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Figure 12
Proposed Sampling Locations for
Oil Leak (IHSS 129)





Legend

- ▲ Proposed HPGe Survey Locations (150ft. Grid)

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Figure 14
Proposed HPGe Survey Locations for
P.U. & D. Storage Yard - Waste Spills
(IHSS 170)



IHSS 174B

Closure Plan Location of
Dumpster Storage Area (U.S. DOE, 1984b)

IHSS
174A

IHSS 170

Dumpster Storage Area

(1" = 20')

Drum Storage Area

(1" = 20')

Legend

- ⊠ Previous Soil Sample Location
- Proposed Soil Gas Sample Locations (20 ft. Grid)
- Proposed Surficial Soil Sample Location (Nonradiological)

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Figure 15
Proposed Sampling Locations for
P.U.&D. Container Storage Facilities
(IHSS 174)

OU 10



IHSS 174B

Closure Plan Location of
Dumpster Storage Area (U.S. DOE, 1984b)

IHSS
174A

IHSS 170

Dumpster Storage Area

(1"=20')

Legend

- ▲ Proposed HPGe and Sodium Iodide Probe Survey Locations
- △ Proposed Sodium Iodide Probe Survey Locations (25ft. Grid)

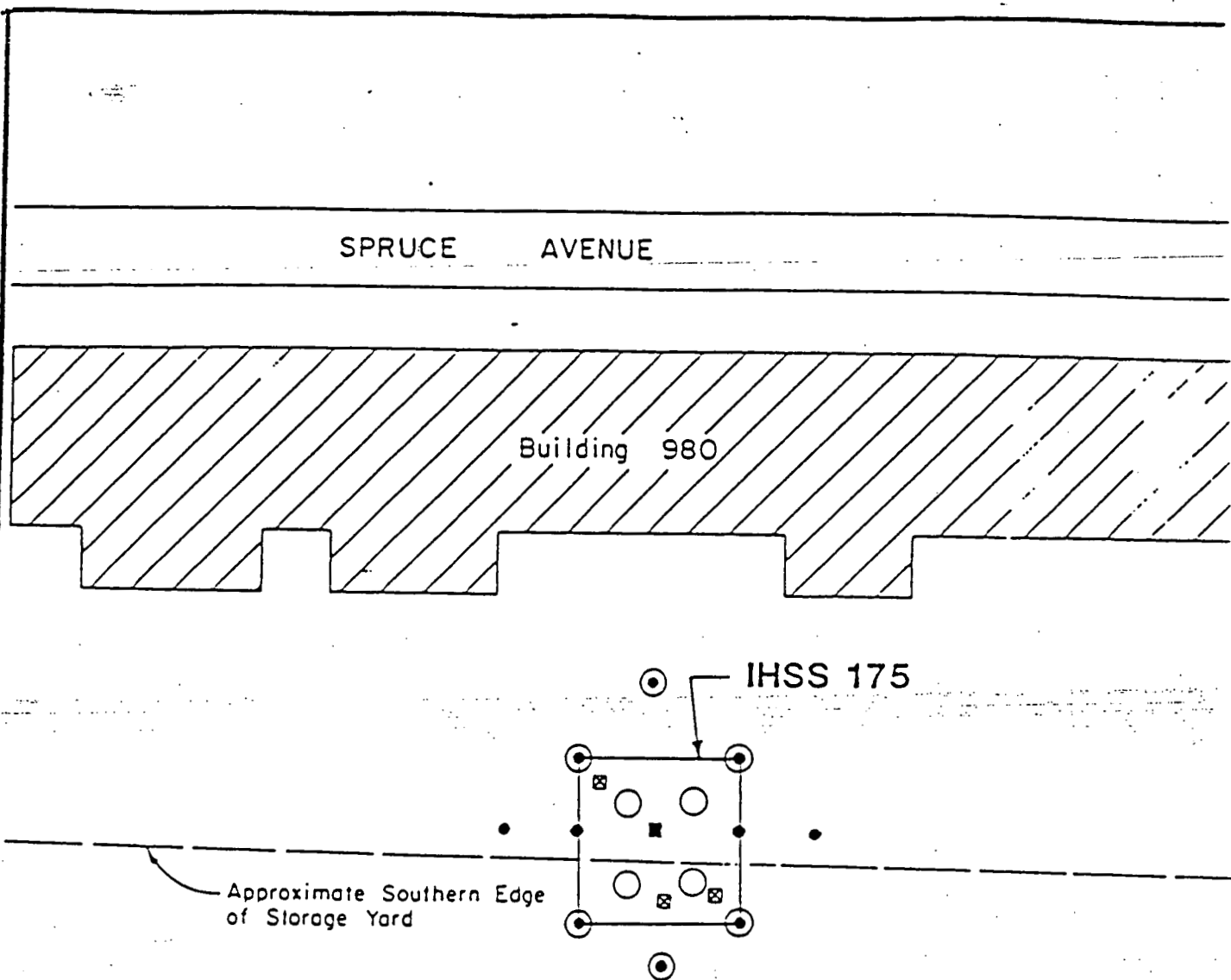
Drum Storage Area

(1"=20')

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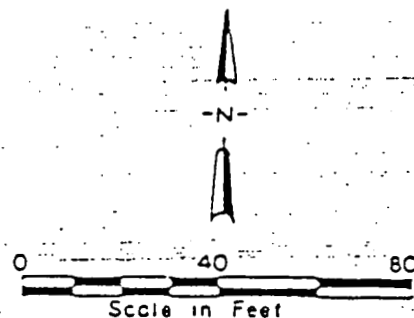
Figure 16
Proposed HPGe and Sodium Iodide
Probe Survey Locations - P.U. & D.
Container Storage Facilities (IHSS 174)

OU 10



Legend

- ☒ Previous Soil Sample Location
- Proposed Soil Gas and Previous Soil Sample Location
- Proposed Soil Gas Sample Locations (20 ft. Grid)
- Proposed Surficial Soil Sample Locations (Nonradiological)



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Figure 17
Proposed Sampling Locations for
S & W Building 980 Container Storage
Facility (IHSS 175)

OU 10

SPRUCE AVENUE

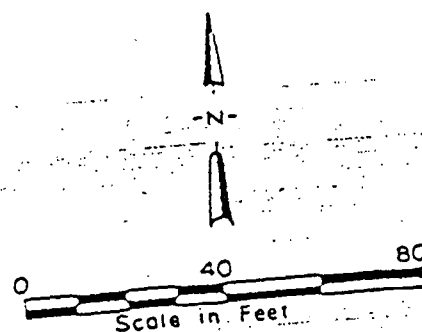
Building 980

IHSS 175

Approximate Southern Edge
of Storage Yard

Legend

- ▲ Proposed HPGe and Sodium Iodide Probe Survey Locations
- △ Proposed Sodium Iodide Probe Survey Locations (25ft. Grid)



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Figure 18
Proposed HPGe and Sodium Iodide
Probe Survey Locations - S & W Building
980 Container Storage Facility
(IHSS 175)

OU 10

IHSS 176
(IAG Location)

Outer Limits of Storage
Yard, Based on 1980-E
Aerial Photographs

Culvert

SOLAR
PONDS

Building
964

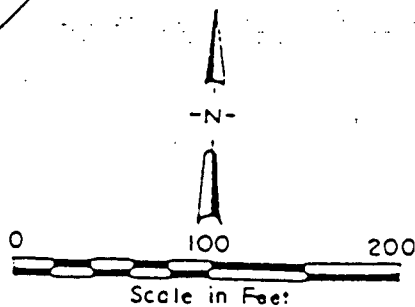
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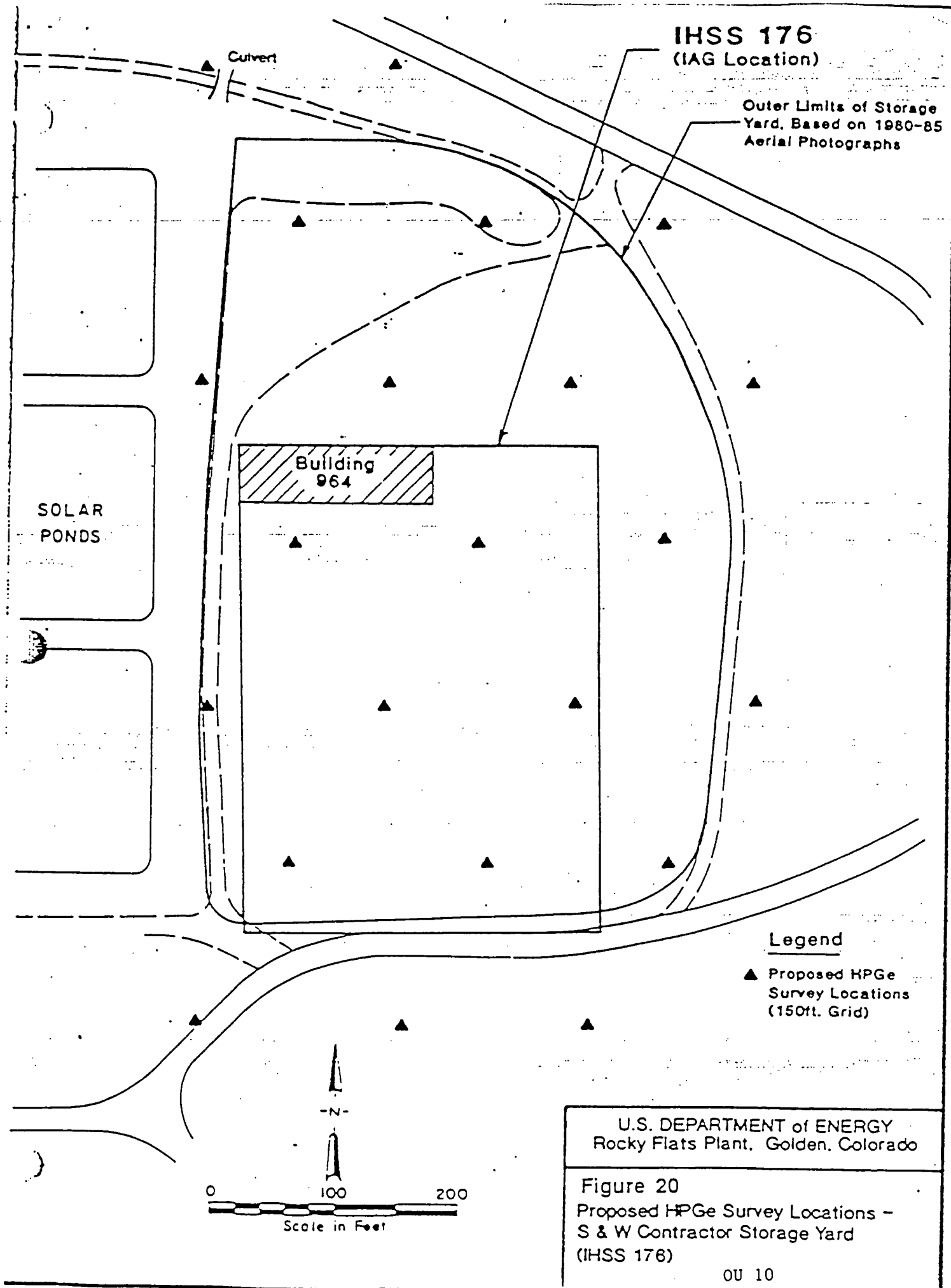
- ☒ Previous Soil Sample Location
- Previous Soil Sample and Proposed Soil Gas Sample Location
- Proposed Soil Gas Sample Locations (40ft. Grid)
- Proposed Surficial Soil Sample Locations (Nonrandom)

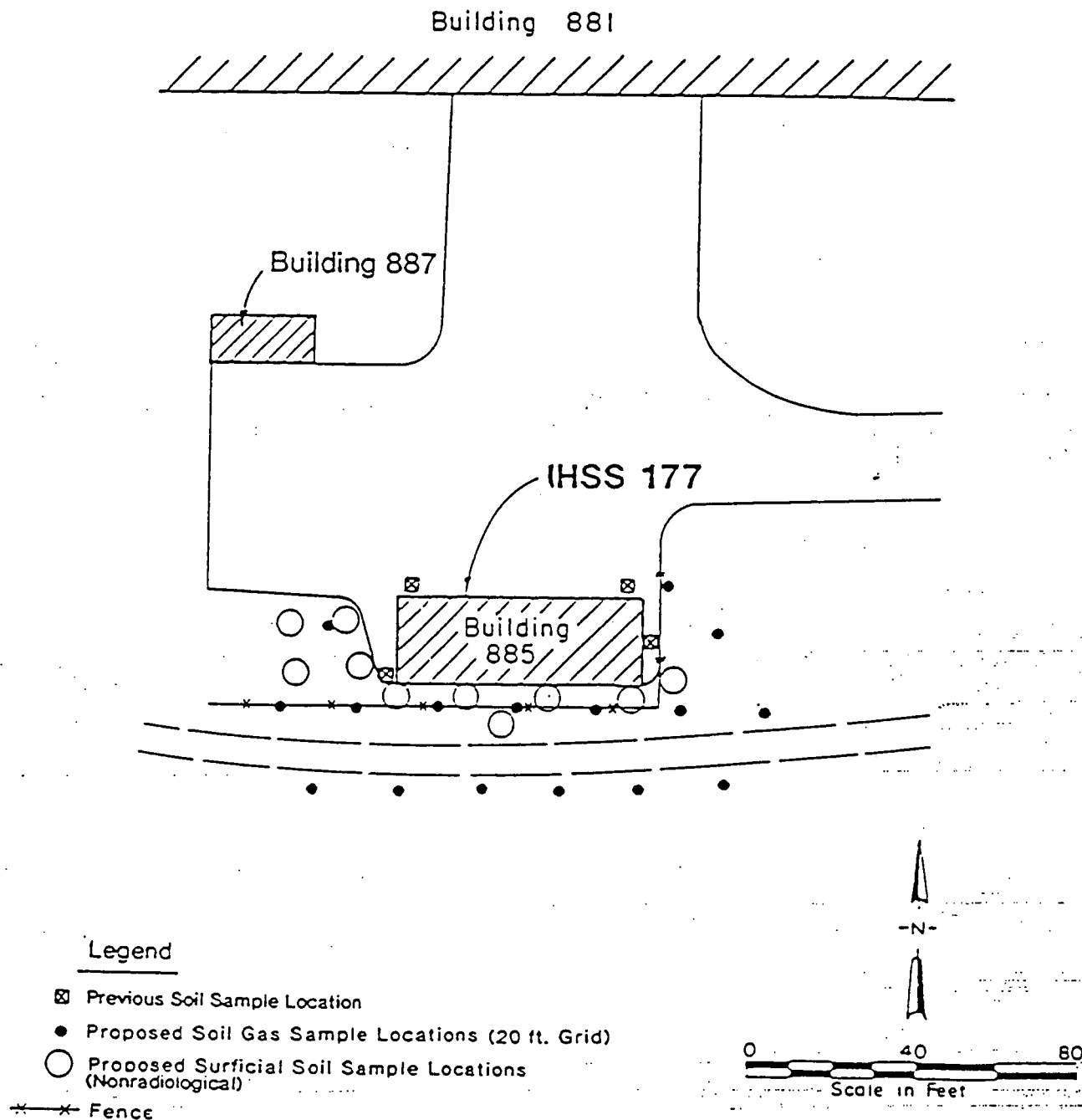
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Figure 19
Proposed Sampling Locations for
S & W Contractor Storage Yard
(IHSS 176)

OU 10

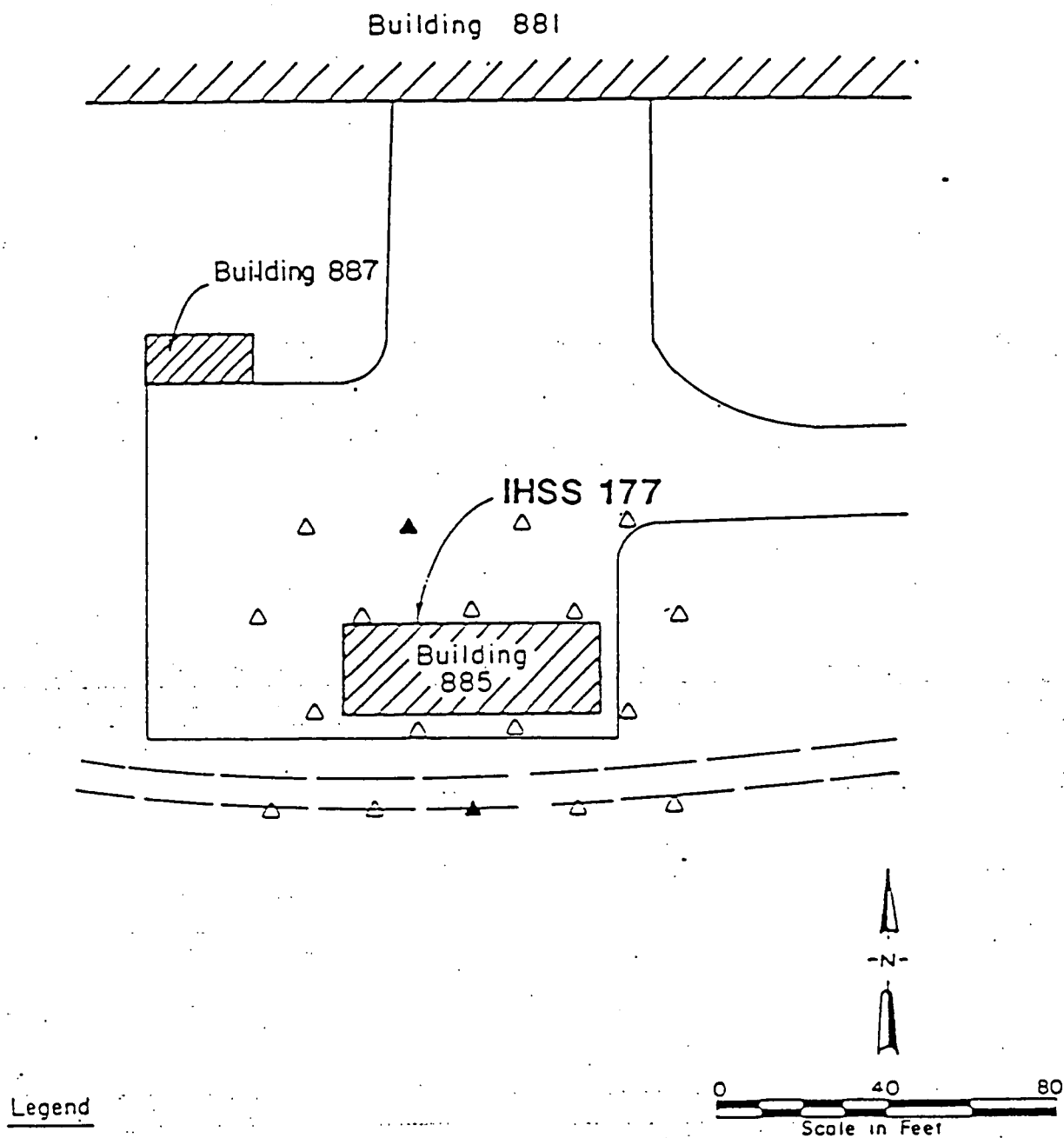


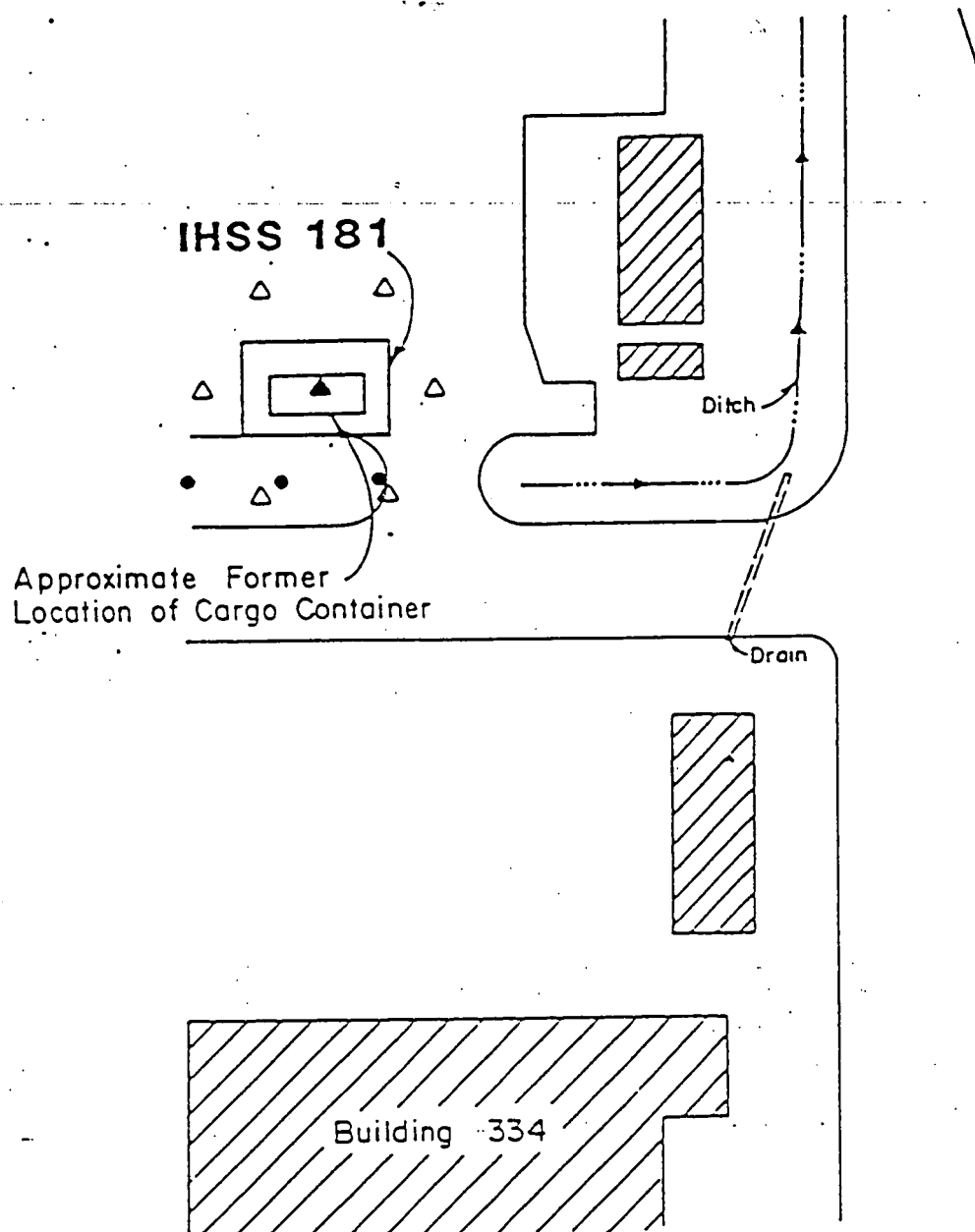




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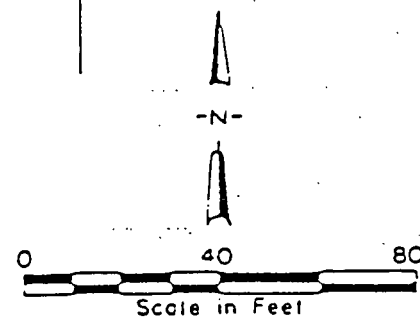
Figure 21
Proposed Sampling Locations for
Building 885 Drum Storage Area
(IHSS 177)





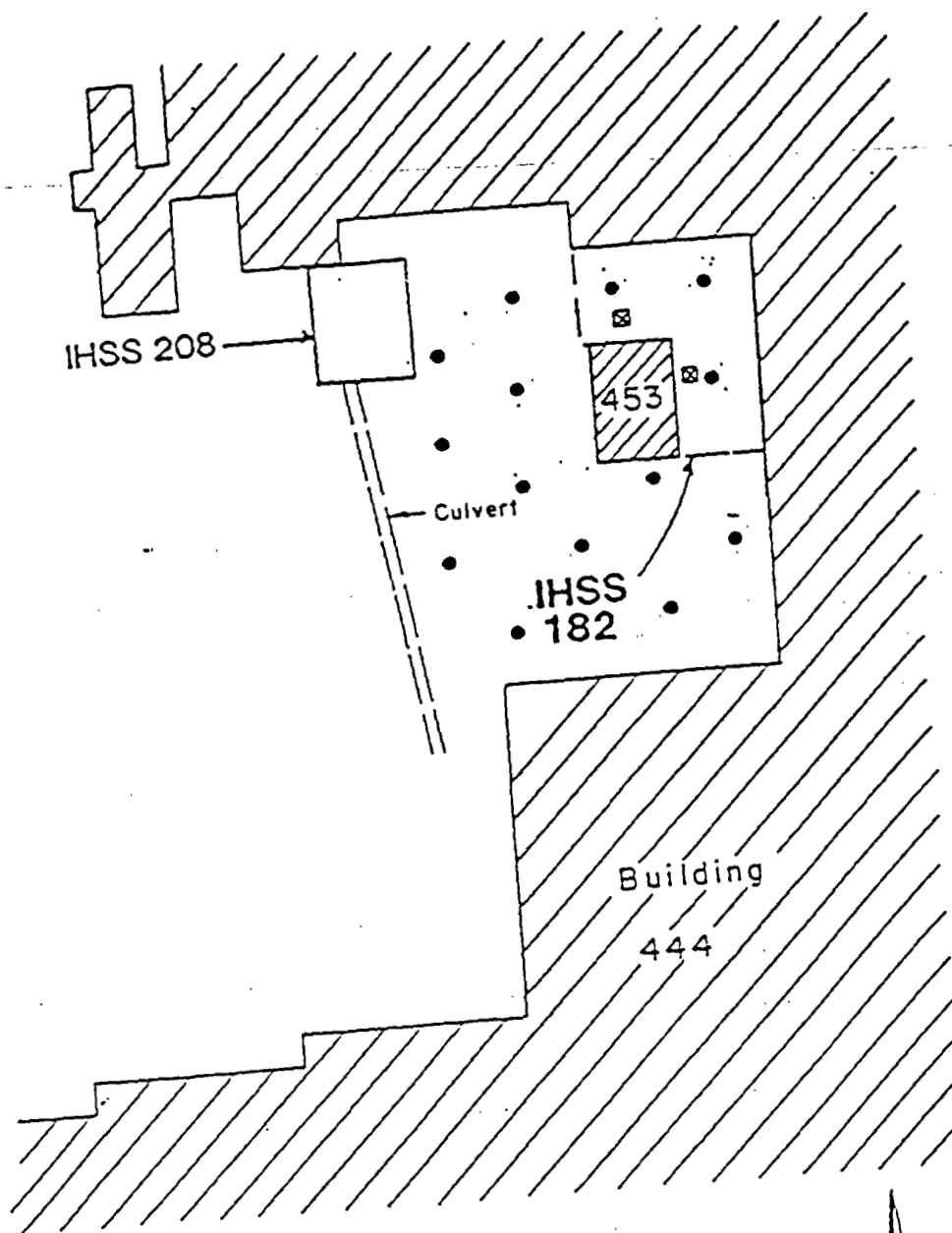
Legend

- Surface Drainage, Indicating Direction of Flow
- Proposed Soil Gas Sample Locations (20 ft. Grid)
- ▲ Proposed HPGe and Sodium Iodide Probe Survey Locations
- △ Proposed Sodium Iodide Probe Survey Locations (25 ft. Grid)



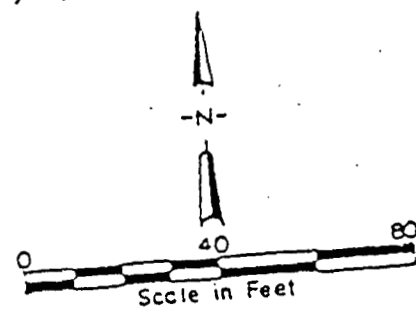
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Figure 23
Proposed Sampling Locations for
Building 334 Cargo Container Area
(IHSS 181)



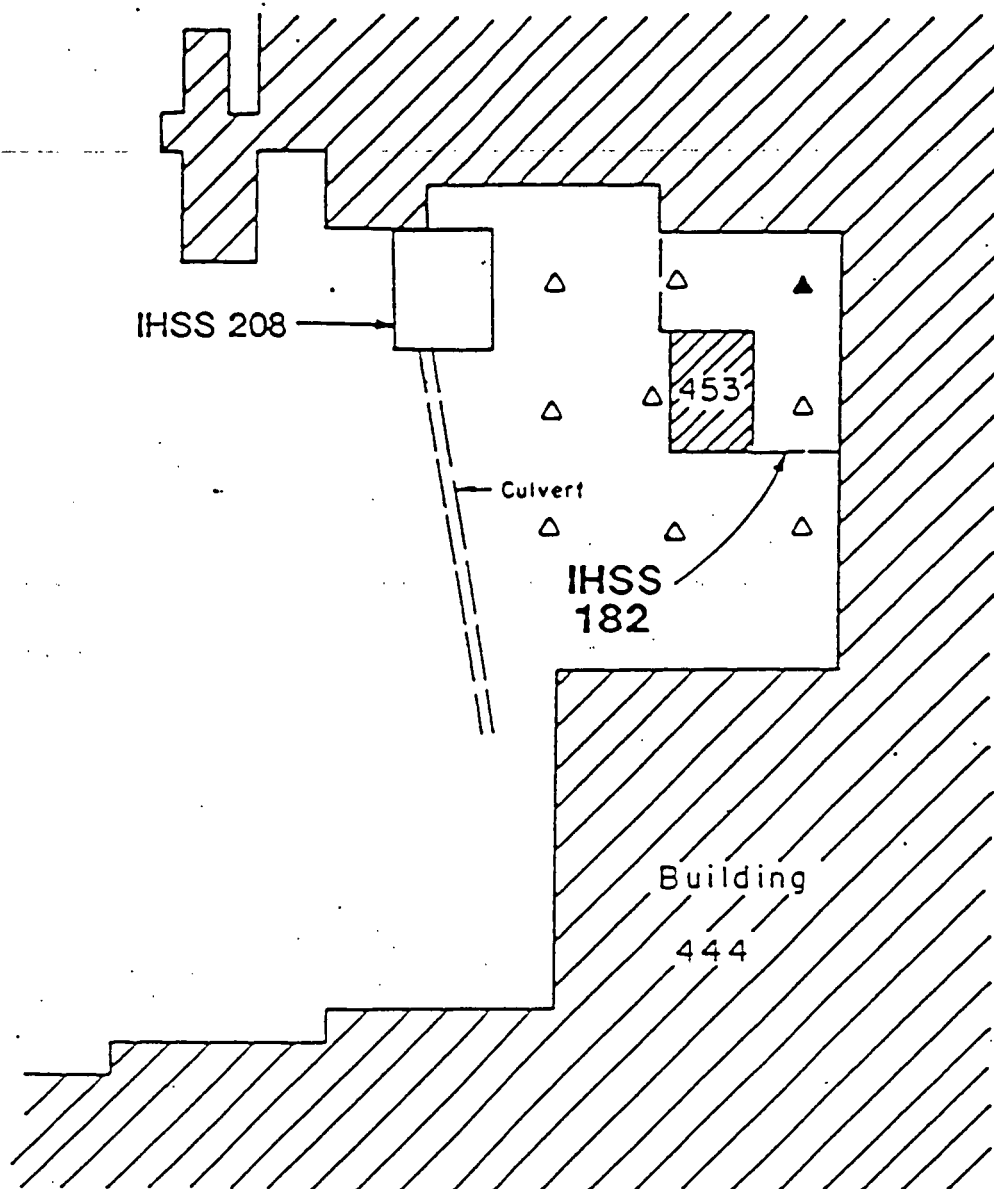
Legend

- ☒ Previous Soil Sample Location
- Proposed Soil Gas Sample Locations (20 ft. Grid)



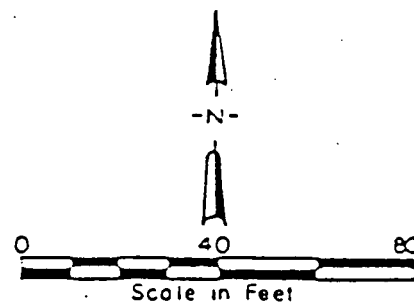
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Figure 24
Proposed Sampling Locations for
Building 444/453 Drum Storage Area
(IHSS 182)



Legend

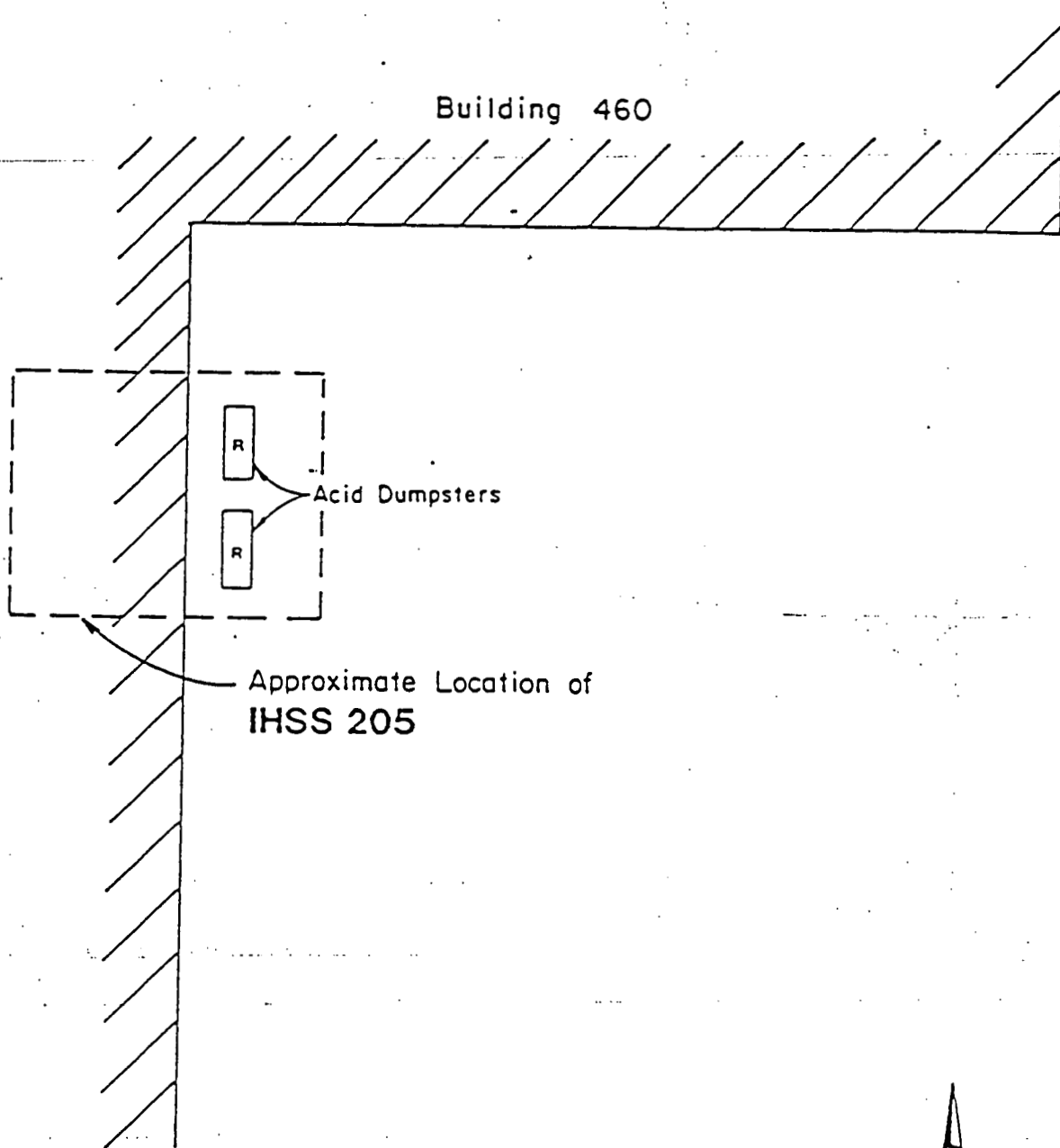
- ▲ Proposed HPGe and Sodium Iodide Probe Survey Locations
- △ Proposed Sodium Iodide Probe Survey Locations (25ft. Grid)



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Figure 25

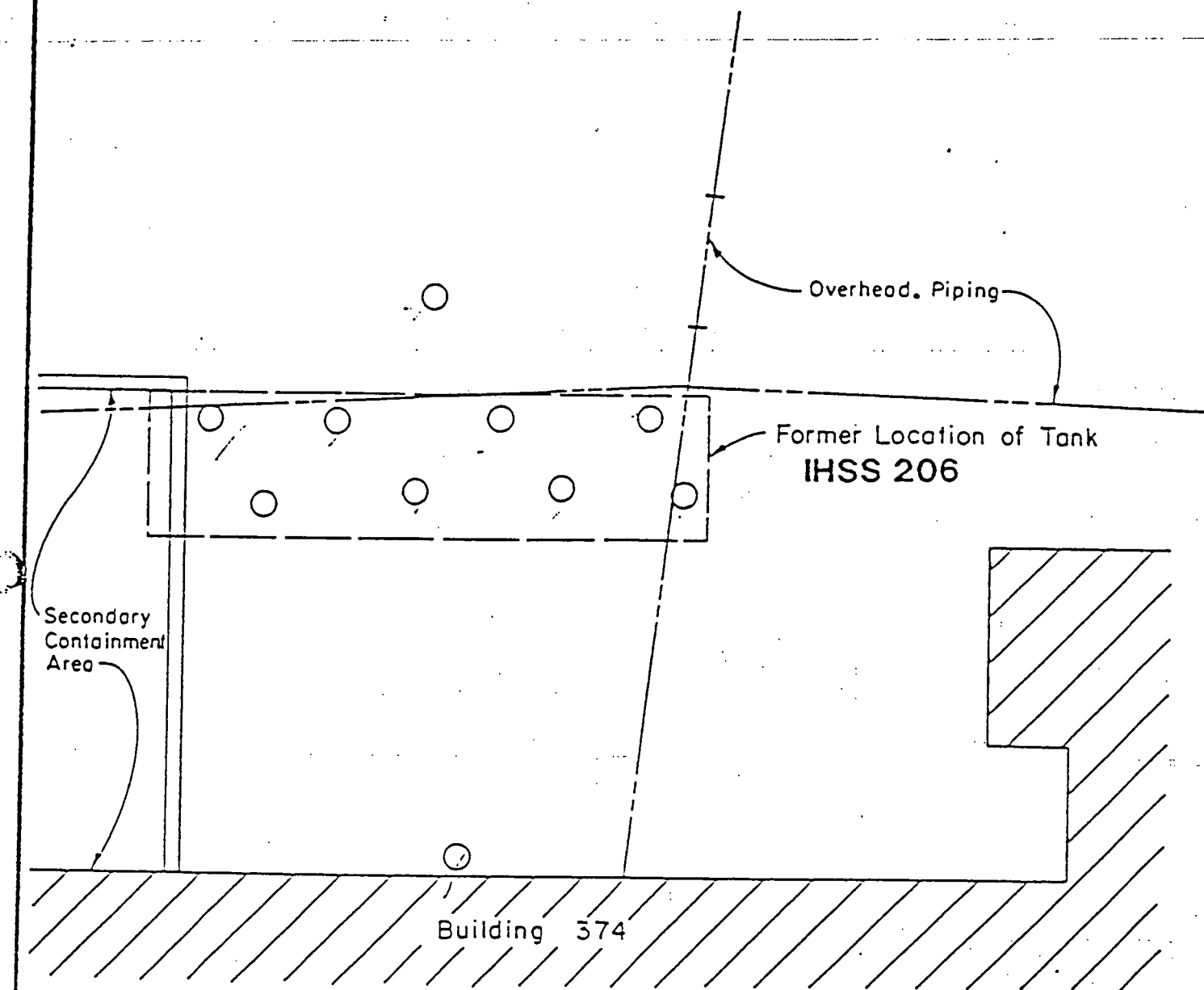
Proposed HPGe and Sodium Iodide
Probe Survey Locations - Building
444/453 Drum Storage Area
(IHSS 182)



Legend
R Tank Residue Sample

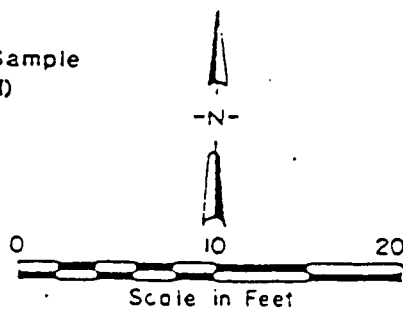
U.S. DEPARTMENT of ENERGY
Rocky Flats Plant, Golden, Colorado

Figure 26
Proposed Sampling Locations for
Building 460 Sump #3 Acid Side
(IHSS 205)



Legend

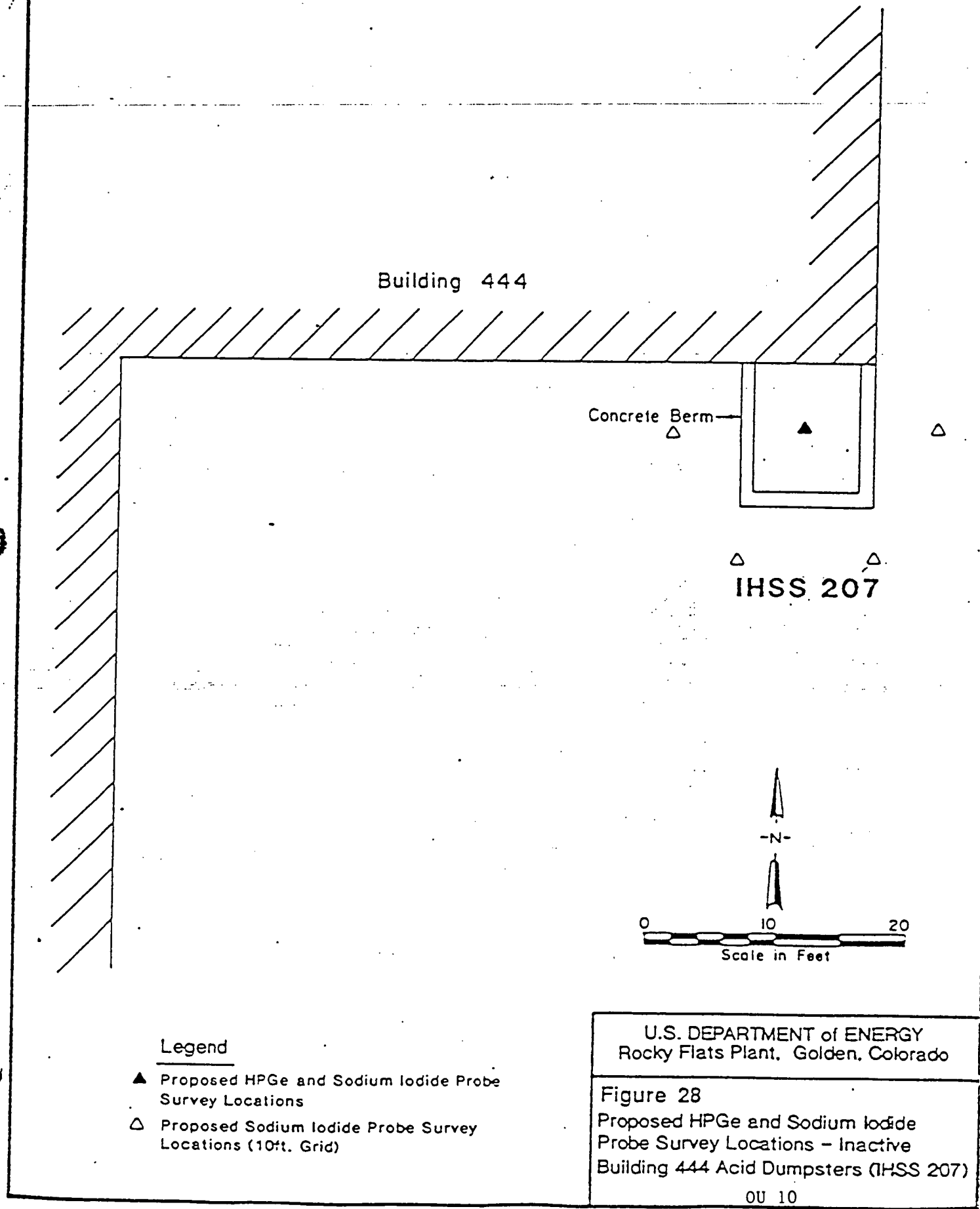
- Proposed Surficial Soil Sample Locations (Nonradiological)

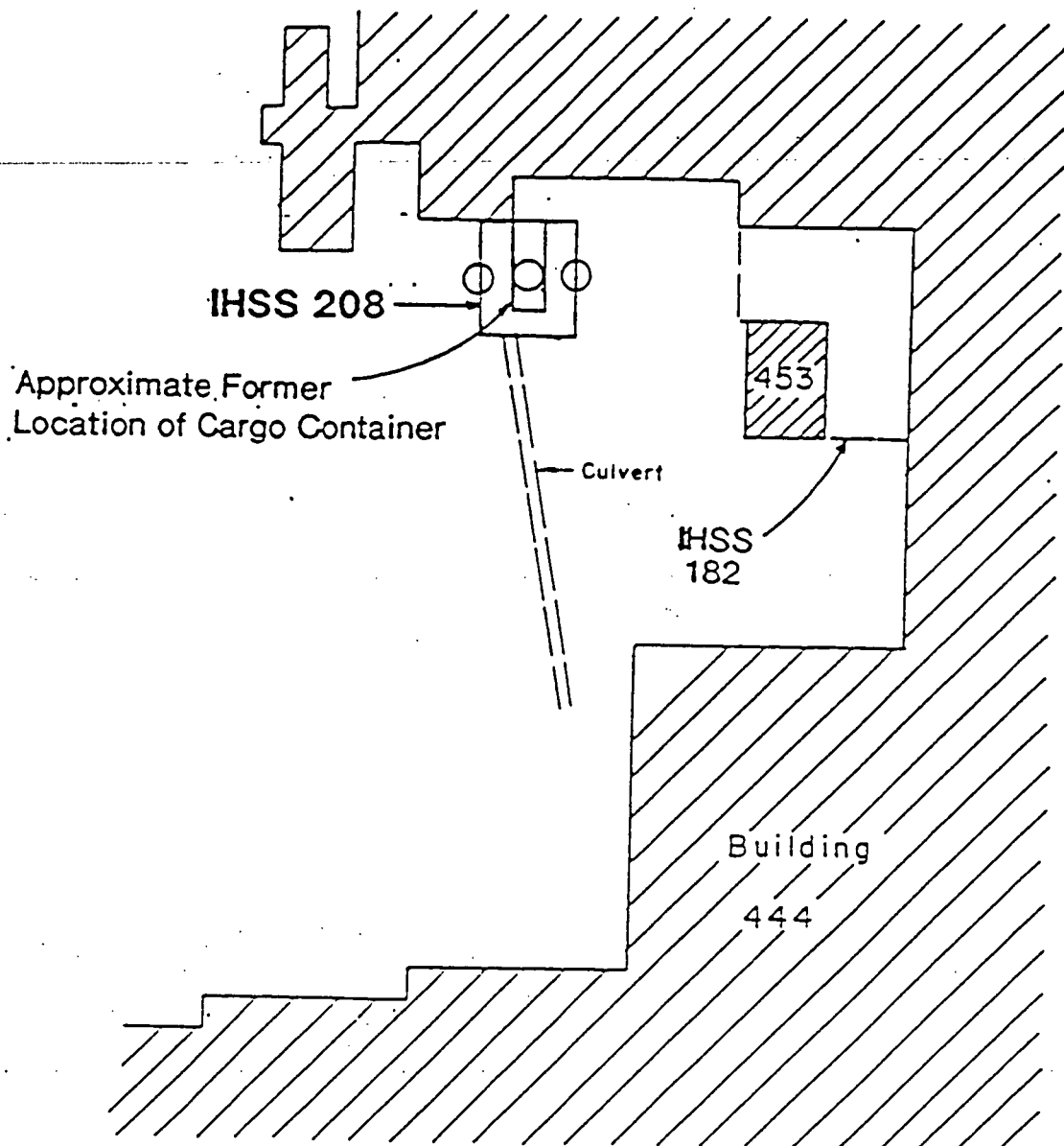


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Figure 27
Proposed Sampling Locations for
Inactive D-836 Hazardous Waste Tank
(IHSS 206)

OU 10





Legend

○ Proposed Surficial Soil Sample Locations
(Nonradiological)

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Figure 29
Proposed Sampling Locations for
Inactive 444/447 Hazardous Waste
Storage Area (IHSS 208)

OU 10

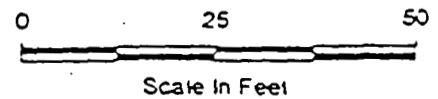
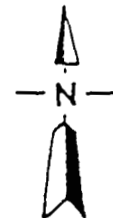
Spruce Avenue

Building 980

IHSS 210

Legend

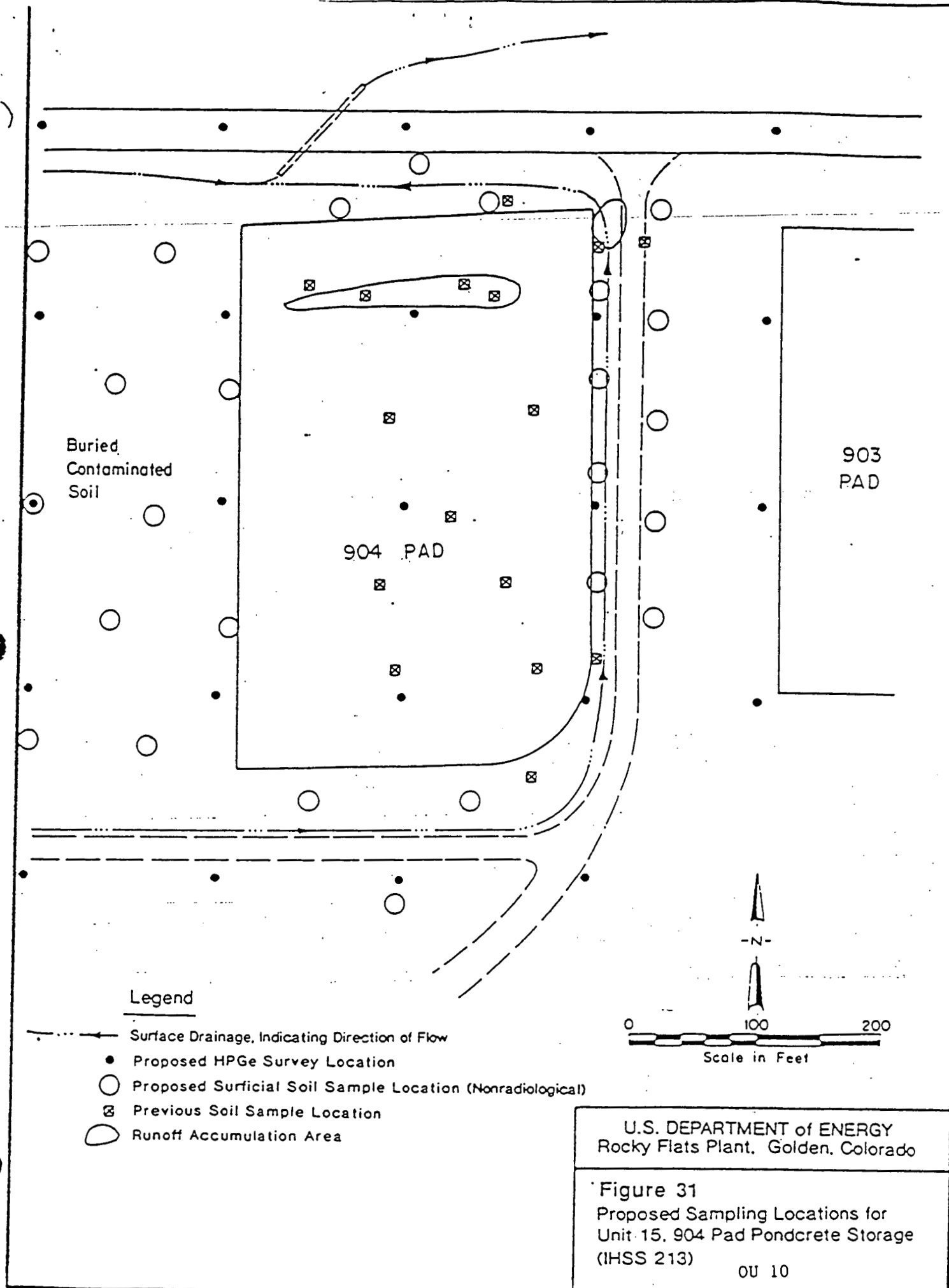
- Proposed Soil Gas Sample Locations (20 ft. Grid)
- Proposed Surficial Soil Sample Locations (Nonradiological)

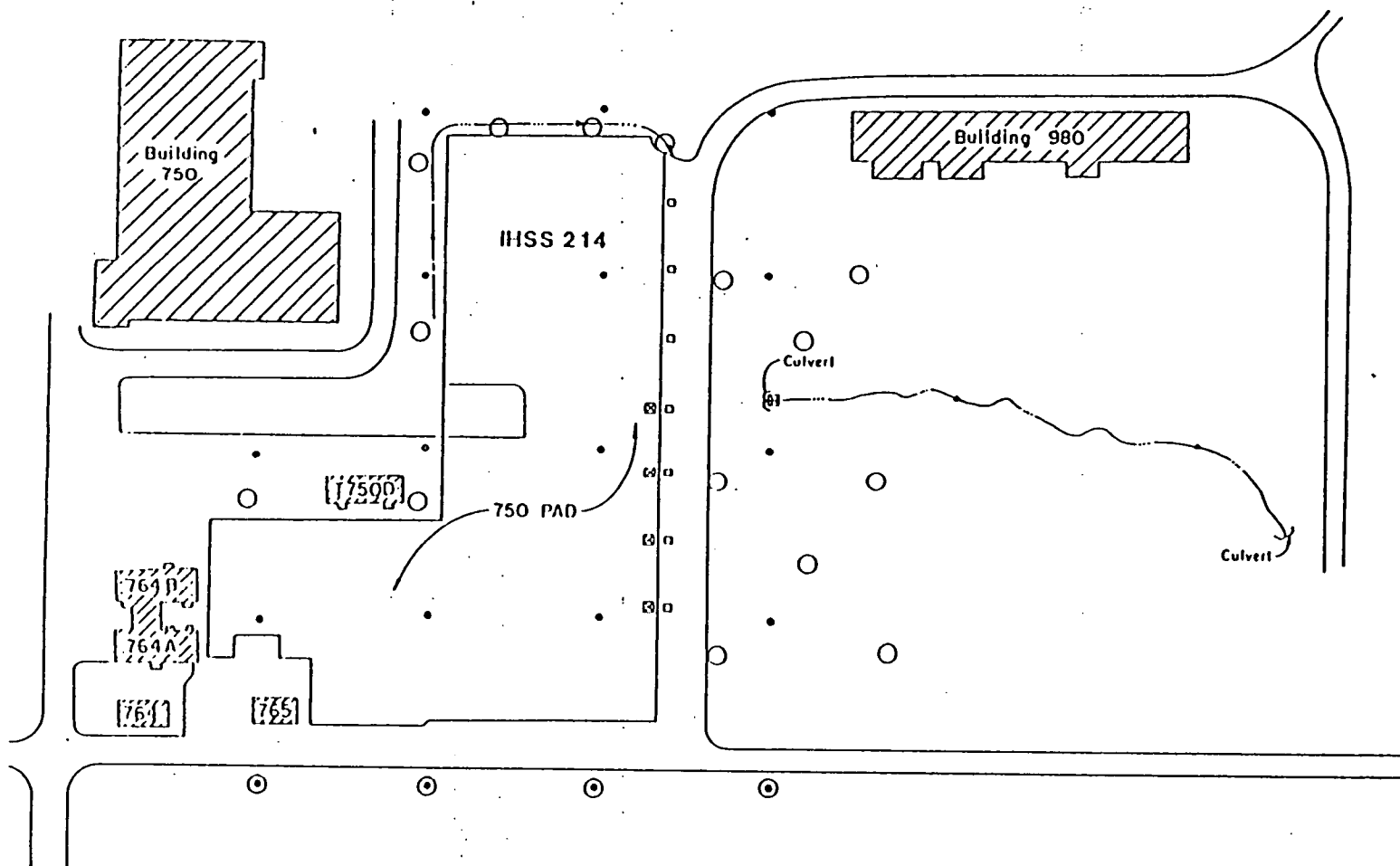


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Figure 30
Proposed Sampling Locations for
Unit 16, Building 980 Cargo Container
(IHSS 210)

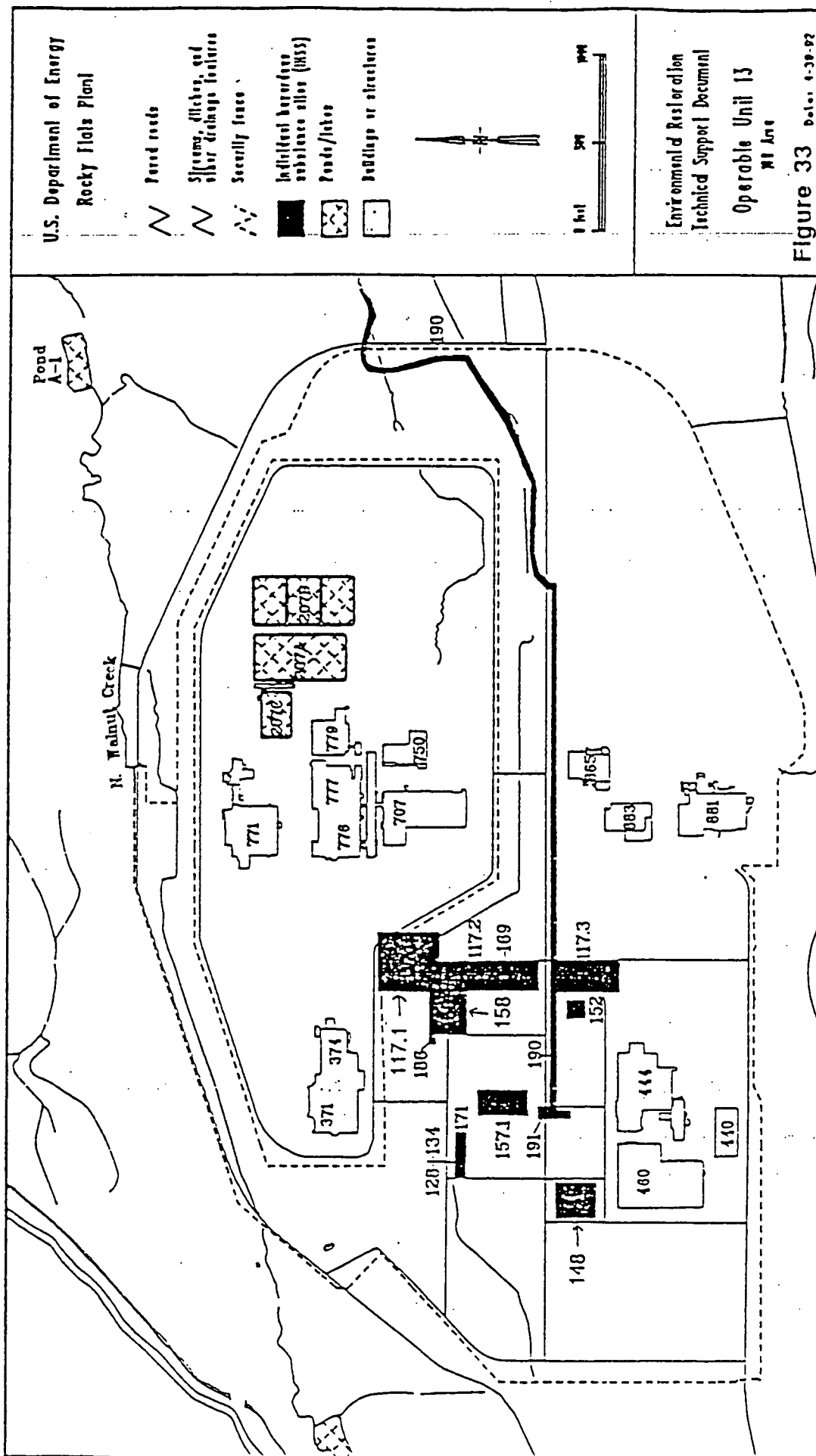
OU 10





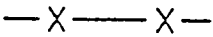
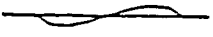
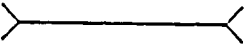
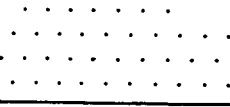



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Figure 32 OU 10
Proposed Sampling Locations for
Unit 25, 760 Pad Pondcrete and
Sulfuric Storage (IHSS 214)



AEDN	ABANDONED
A&M	ALARM & METERING
AS	ALARM SYSTEM-----2'-6' TO 3'-0' DEEP
CD	CONDUIT
CI	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CN	CONDENSATION, STEAM
DCV	DOMESTIC COLD WATER
DCWF	DOMESTIC COLD WATER-FIRE
DISC	DISCONTINUED
E	ELECTRICAL-----1'-6' TO 3'-0' DEEP
GN	GAS, NATURAL
HW	HONEYWELL ALARM SYSTEM
KV	KILOVOLT
N2	NITROGEN
PE	POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
PW	PROCESS WASTE
RCP	REINFORCED CONCRETE PIPE
RW	RAW WATER
SD	STORM DRAIN
SS	SANITARY SEWER
STL	STEEL PIPE
STM	STEAM (5 P.S.I. & ABOVE)
T/TEL	TELEPHONE-----1'-0' TO 8'-0' DEEP
UC-1	UNDERGROUND CABLE-CLASS 1
UC-2	UNDERGROUND CABLE-CLASS 2
VCP	VITRIFIED CLAY PIPE
V	VOLT

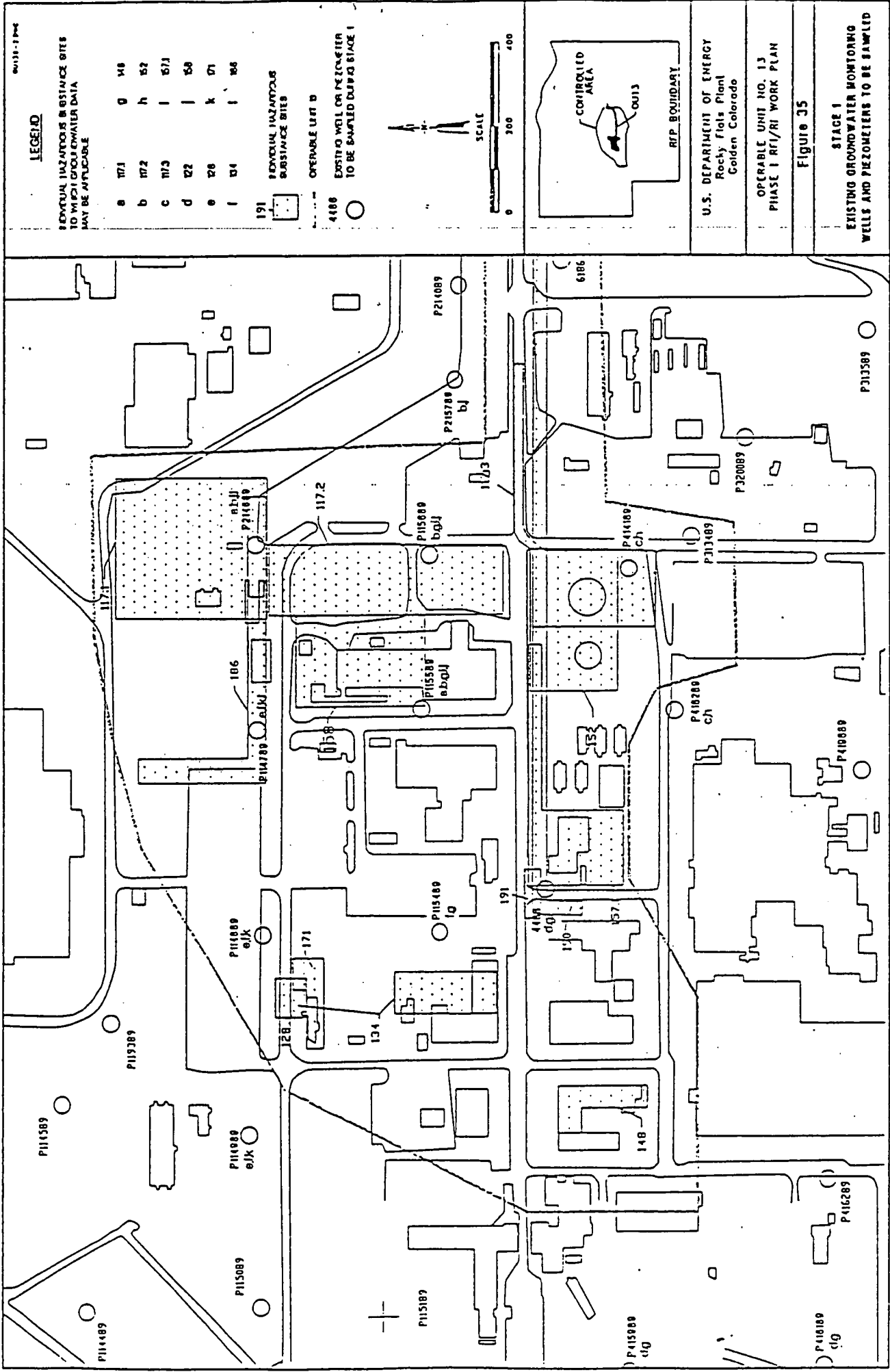
	INDIVIDUAL HAZARDOUS SUBSTANCE SITE
	BUILDINGS
	FENCE
	UTILITY LINE ABANDONED
	CULVERT
	ASPHALT
	DIRT ROAD

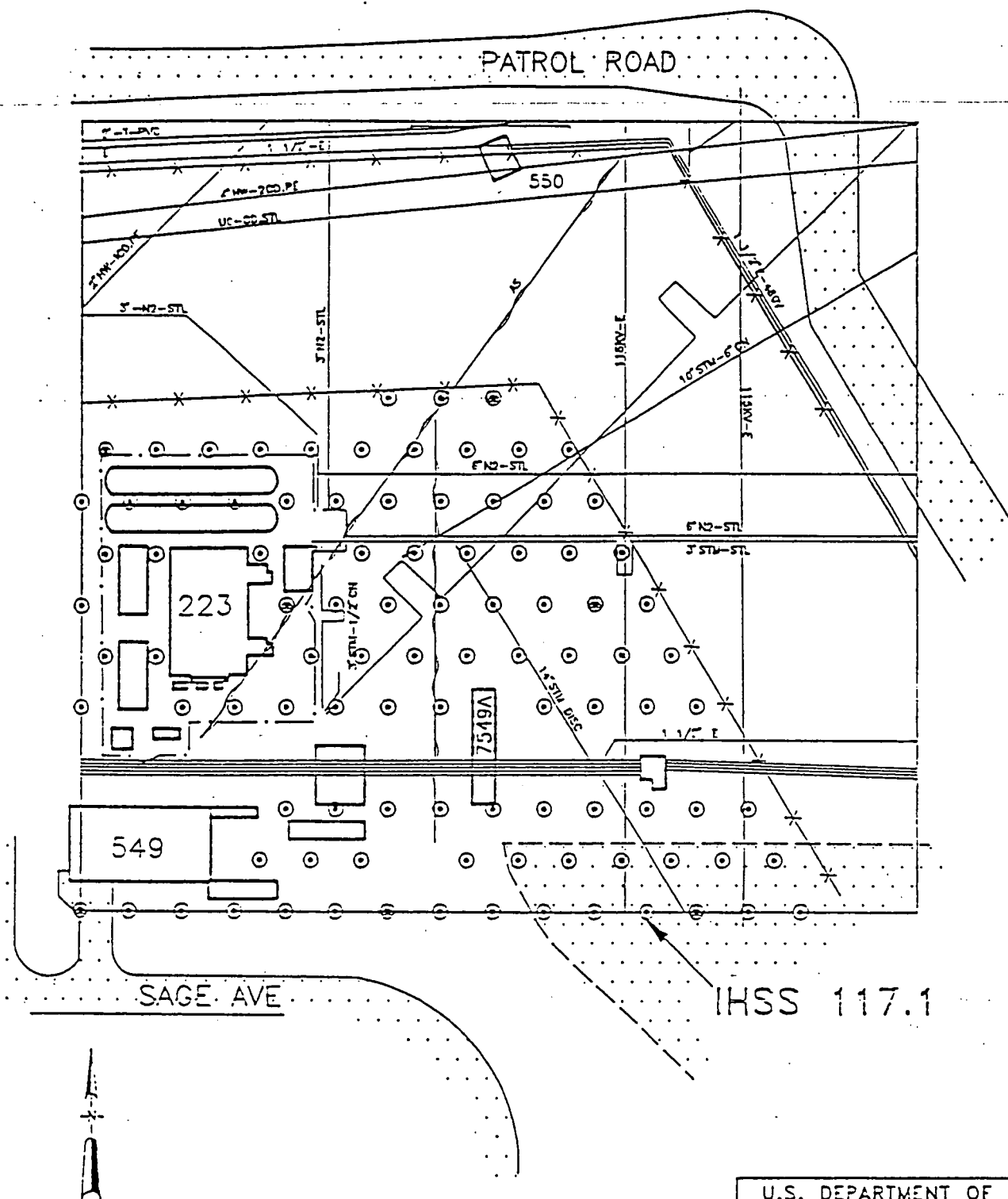
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Golden Colorado

OPERABLE UNIT NO. 13
PHASE I RFI/RI WORK PLAN

Figure 34

Master Legend for
OU 13 Maps





0 30 60

SCALE: 1" = 60'
SCALE APPROXIMATE

- HPGc Station
- Soil Gas Survey Location
- △ Surficial Soil Sample

Note: Vertical profile samples may be taken at some HPGc stations contingent upon HPGc results.

Refer to Fig. 2-2, MASTER LEGEND, for explanation of symbols.

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OPERABLE UNIT NO. 13
PHASE I RFI/RI WORK PLAN

Figure 36

IHSS LOCATION & UTILITIES MAP
WITH PROPOSED SAMPLING LOC'S
IHSS 117.1

SAGE AVE

554

553

556

TENT

STORAGE

STORAGE

SEVENTH ST.

IHSS 158
551

IHSS 117.2

STORAGE

STORAGE

STORAGE

STORAGE

0 30 60

SCALE: 1" = 60'

• HPGc Station

○ Soil Gas Survey Location

△ Surface Soil Sample

Note: Vertical profile samples may be taken at some HPGc stations contingent upon HPGc results.

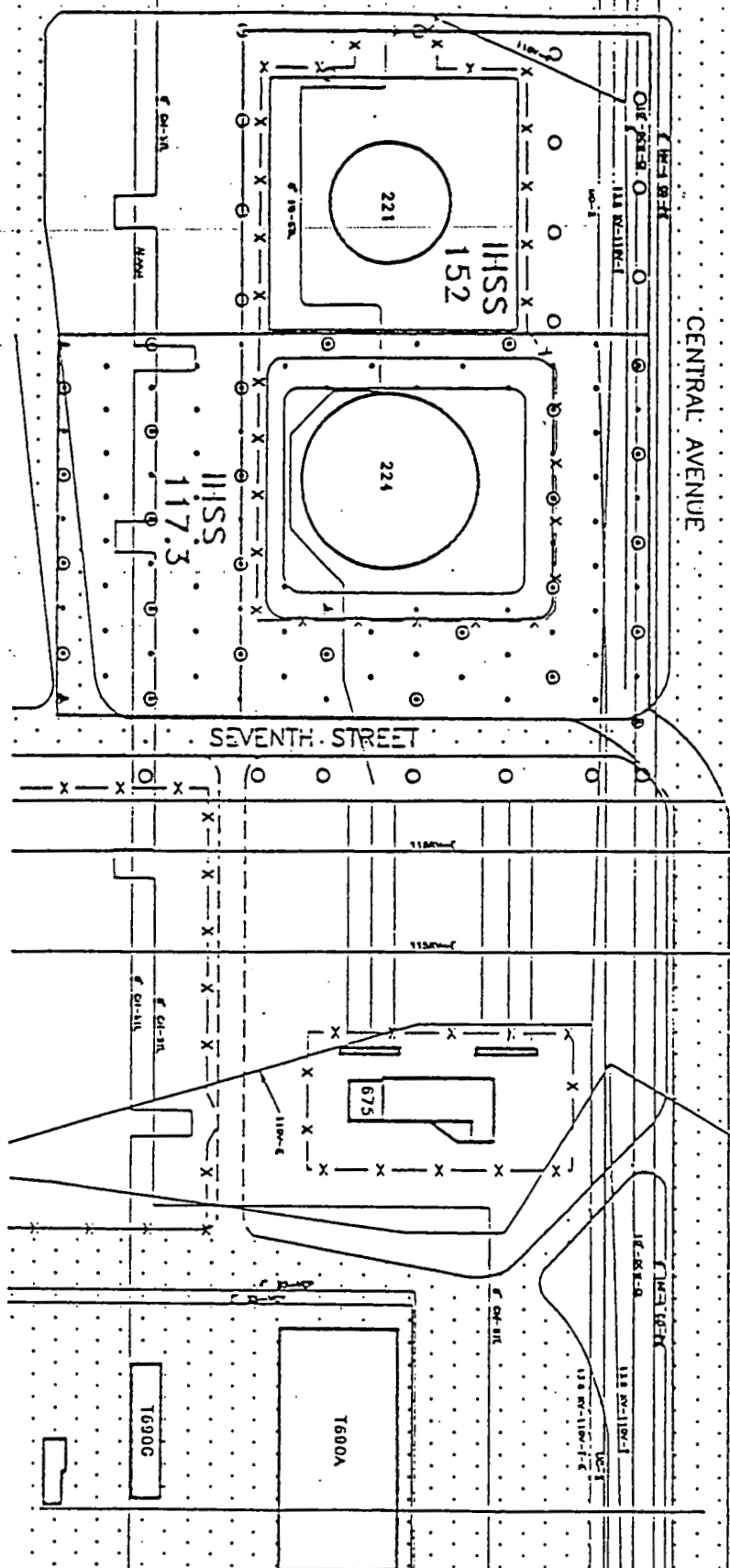
Refer to Fig. 2-2, MASTER LEGEND, for explanation of symbols.

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OPERABLE UNIT NO. 13
PHASE I RFI/RI WORK PLAN

Figure 37

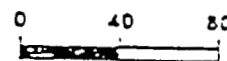
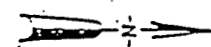
IHSS LOCATION & UTILITIES MAP
WITH PROPOSED SAMPLING LOC'S
IHSS 158 & 117.2



- HPGe Station
- Soil Gas Survey Location
- △ Surface Soil Sample

Note: Vertical profile samples may be taken at some HPGe stations contingent upon HPGe results.

Refer to Fig. 2-2, MASTER LEGEND, for explanation of symbols.



SCALE: 1" = 80'

SCALE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant
Golden Colorado

OPERABLE UNIT NO. 13
PHASE I RFI/RI WORK PLAN

Figure 38

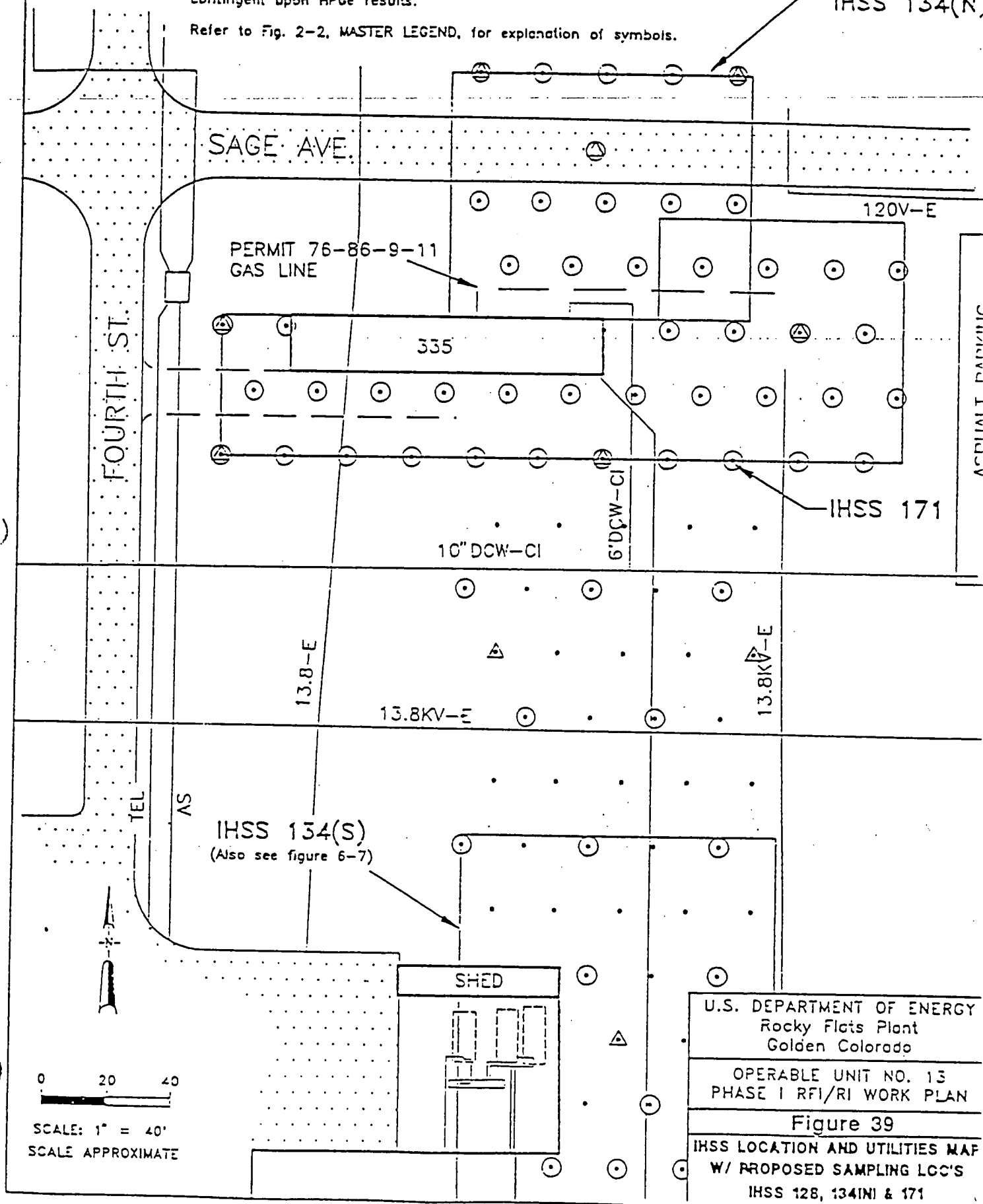
IHSS LOCATION & UTILITIES MAP
W/ PROPOSED SAMPLING LOC'S
IHSS 117.3 & 152

- HPGe Station
- Soil Gas Survey Location
- △ Surface Soil Sample

Note: Vertical profile samples may be taken at some HPGe stations contingent upon HPGe results.

Refer to Fig. 2-2, MASTER LEGEND, for explanation of symbols.

IHSS 128
IHSS 134(N)



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OPERABLE UNIT NO. 13
PHASE I RFI/RI WORK PLAN

Figure 39

IHSS LOCATION AND UTILITIES MAP
W/ PROPOSED SAMPLING LOC'S
IHSS 128, 134(N) & 171

FOURTH ST.

13.8-E

13.8KV-E

13.8KV-I

TEL

AS

SHED

IHSS 134(S)

120V-E

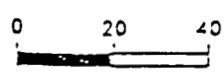
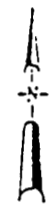
331

4" HW-6CD.PE

N35.452

T-331

AS



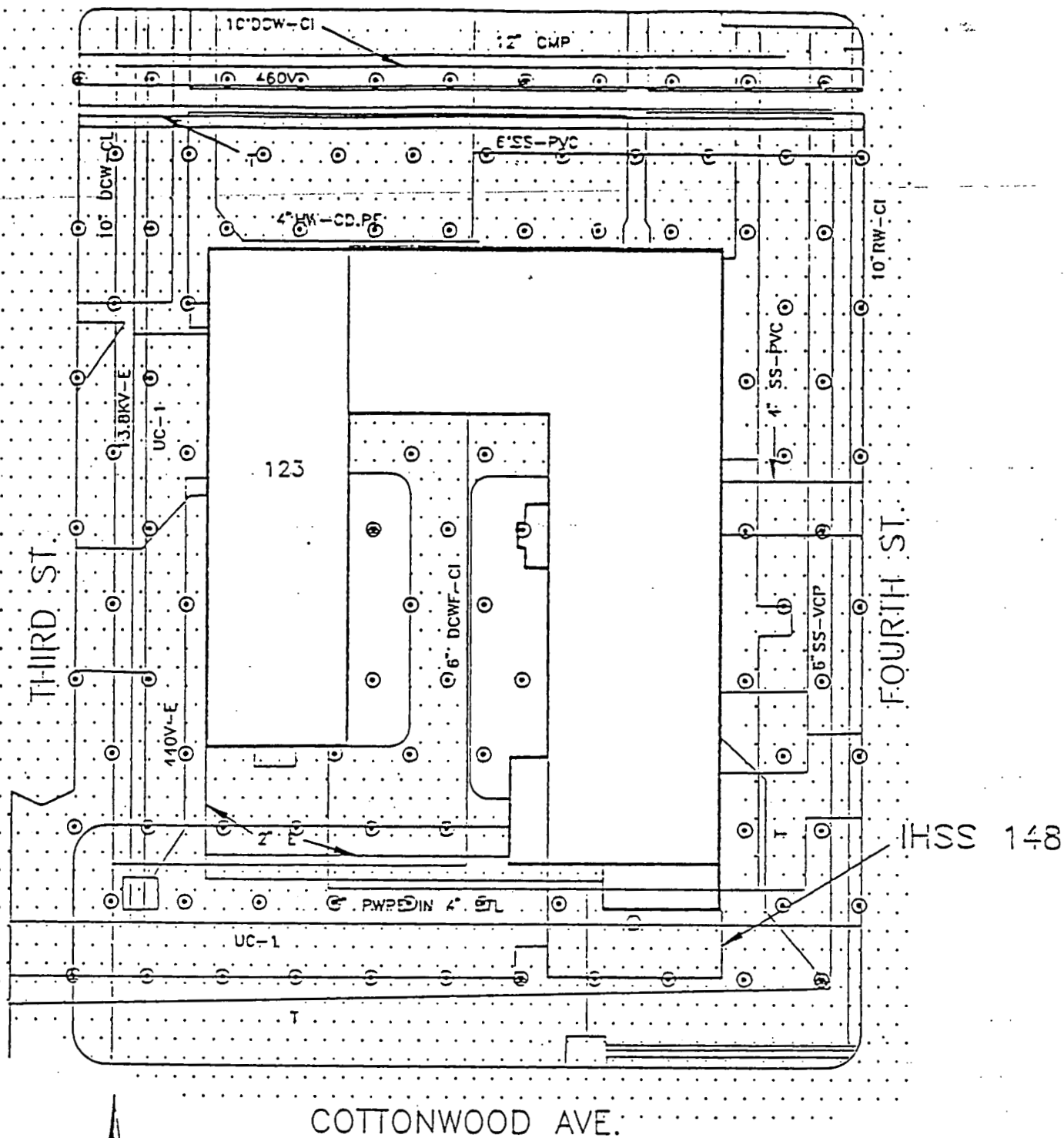
SCALE: 1" = 40'
SCALE APPROXIMATE

- HPGc Station
- Soil Gas Survey Location
- △ Surficial Soil Sample

NOTE: Vertical profile samples may be taken at some HPGc stations
contingent upon HPGc results.
Refer to Fig. 2-2, MASTER LEGEND, for explanation of symbols.

U.S. DEPARTMENT OF ENERGY Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO. 13 PHASE I RFI/RI WORK PLAN
Figure 40
IHSS LOCATION & UTILITIES MAP W/ PROPOSED SAMPLING LOC'S IHSS 134(S)

CENTRAL AVENUE



0 20 40

SCALE: 1" = 40'
SCALE APPROXIMATE

- HPGc Station
- Soil Gas Survey Location
- △ Surficial Soil Sample
- Borehole Location

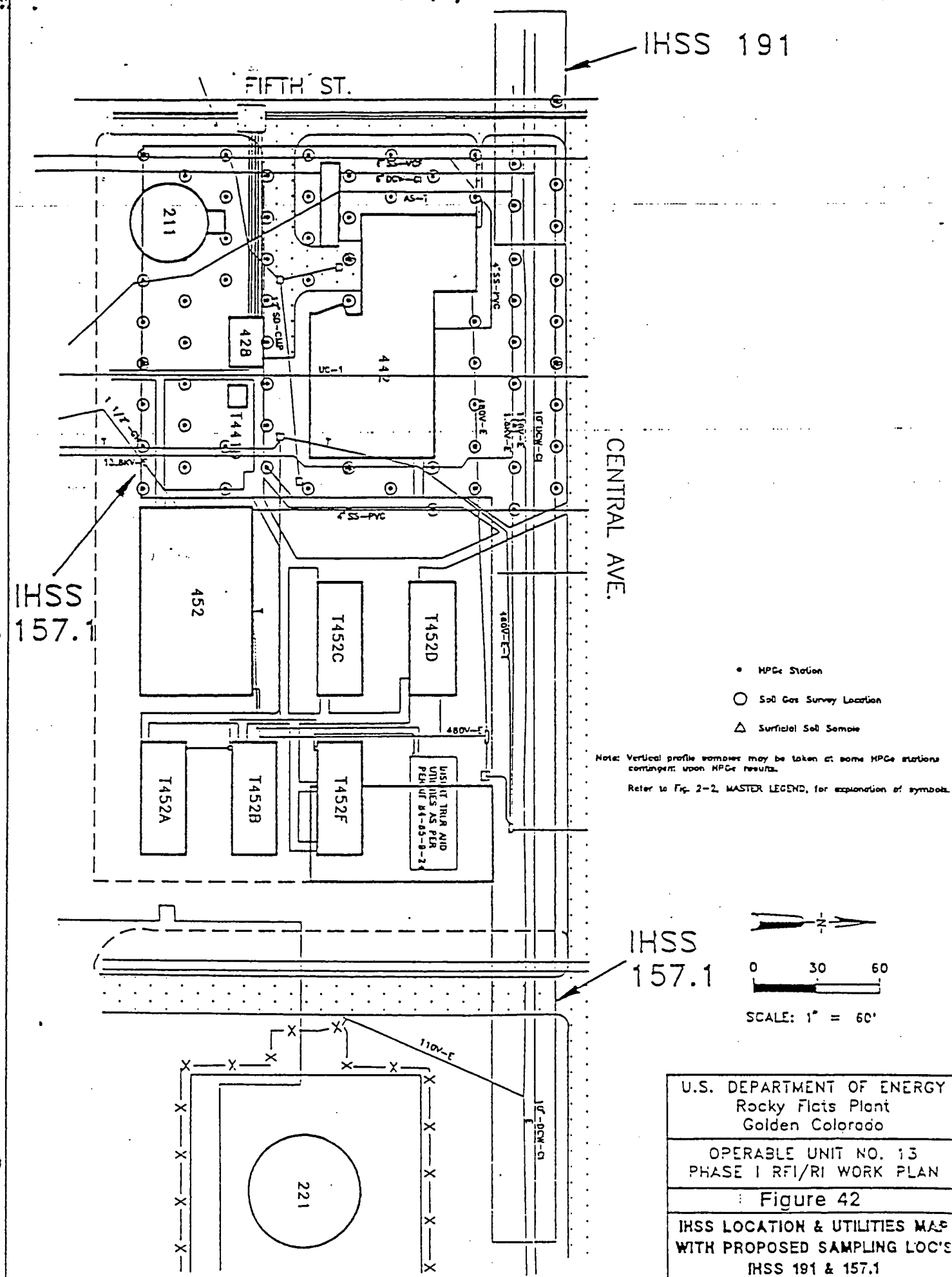
Note: Vertical profile samples may be taken at some HPGc stations contingent upon HPGc results.
Refer to Fig. 2-2 MASTER LEGEND, for explanation of symbols.

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Rocky Flats Plant
Golden Colorado

OPERABLE UNIT NO. 13
PHASE I RFI/RI WORK PLAN

Figure 41

IHSS LOCATION & UTILITIES MAP
WITH PROPOSED SAMPLING LOC'S
IHSS 148



IHSS 186

552

549

223

7549A

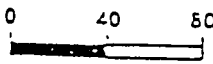
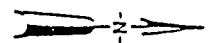
550

IHSS 186

SOIL GAS & SURFACE
RADIOLOGICAL SURVEY
WILL BE DONE AS PART
OF IHSS 117.1 SURVEY

SAGE AVE

PATROL ROAD



SCALE: 1" = 80'
SCALE APPROXIMATE

- HPCe Station
- Soil Gas Survey Location
- △ Surface Soil Sample
- Borehole Location

Note: Vertical profile samples may be taken at some HPCe stations
contingent upon HPCe results.
Refer to Fig. 2-2, MASTER LEGEND, for explanation of symbols.

U.S. DEPARTMENT OF ENERGY Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO. 13 PHASE I RFI/RI WORK PLAN
Figure 43
IHSS LOCATION & UTILITIES MAP WITH PROPOSED SAMPLING LOC'S IHSS 186

